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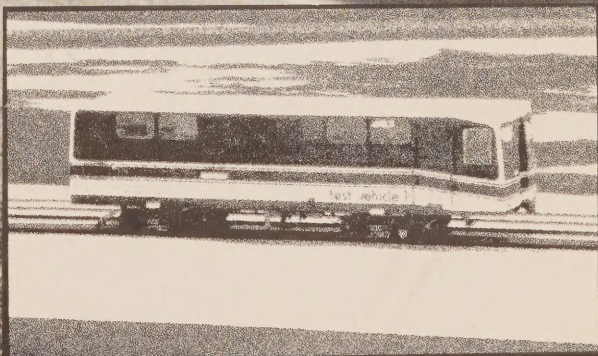
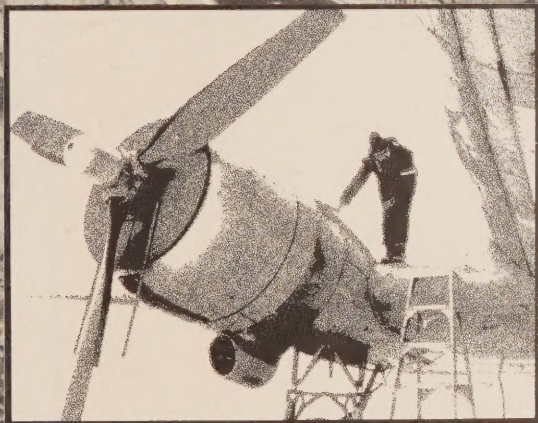
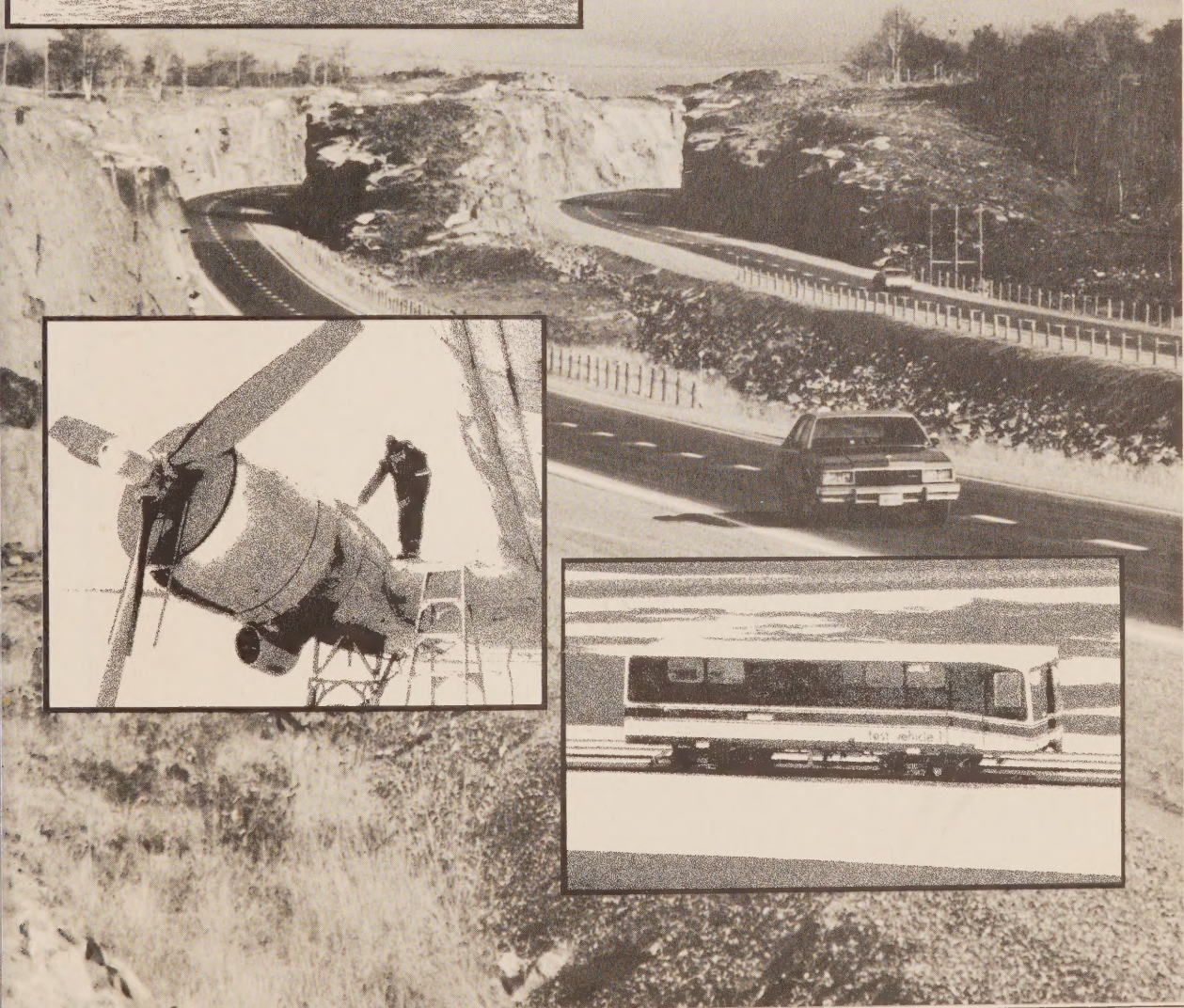
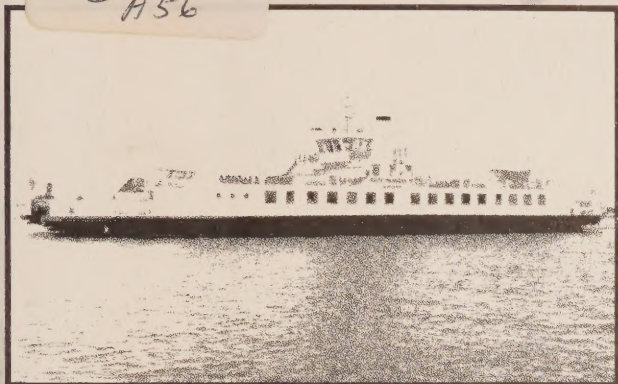
ANNUAL REPORT 1980-81



Ministry of
Transportation and
Communications

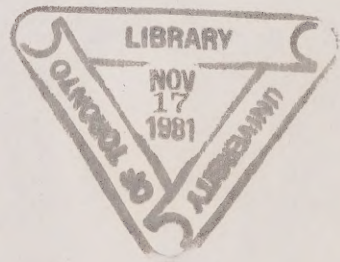
Ontario

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Annual Report 1980-1981

for the
fiscal year
ending
March 31, 1981



Ontario

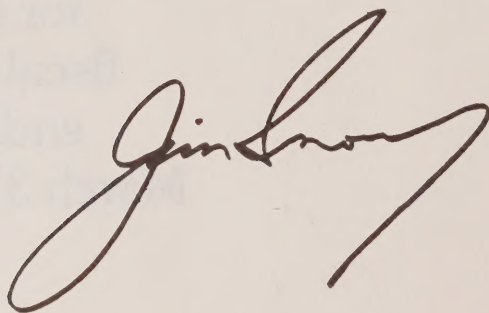
Ministry of
Transportation and
Communications

To: The Honourable John B. Aird,
O.C., Q.C., L.L.D.
Lieutenant-Governor of the Province of Ontario

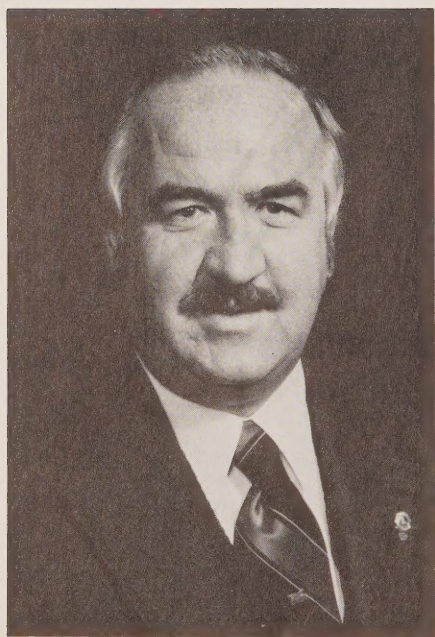
MAY IT PLEASE YOUR HONOUR:

The undersigned takes pleasure in laying before
you the Annual Report for the Ministry of
Transportation and Communications for the fiscal
year ending March 31, 1981.

Respectfully submitted,

A large, stylized handwritten signature in dark ink, appearing to read "Jim Snow".

James Snow
Minister



To: The Honourable James Snow
Minister of
Transportation and Communications

Sir:

I have the honour to present the report of the
activities of the Ministry of Transportation and
Communications for the fiscal year ending March
31, 1981.

Respectfully submitted,

Harold Gilbert



Harold Gilbert
Deputy Minister

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Deputy Minister's Summary



GO Trains are major people movers

During the 1980-81 fiscal year, MTC pursued its mandate to provide a balanced mix of transportation and communications services throughout Ontario, despite sharply increased inflationary pressures.

The Ministry made progress, too, in the diversification of Ontario's transportation network, ensuring its responsiveness to the needs of the 80s. And MTC was selected to play a key role in the government's Board of Industrial Leadership and Development Program (BILD) announced in January.

Ontario Highways

Highways, of course, remained an important part of the transportation mix for the movement of people and goods, with an overall expenditure of \$494,295,700 during the fiscal year. And an additional \$424,164,066 was expended to subsidize municipal provincial road construction.

In total, MTC constructed or rehabilitated 579 km of two-lane highway, including construction of 64 bridges. Work on multi-laned divided freeways totalled 154 km. Of the total highway expenditure, \$133,494,823 was spent on maintenance of King's highways.

A number of construction projects were accelerated as a result of BILD, which meant an injection of some \$25,000,000 for freeway arterial con-

struction in Southern Ontario's Golden Horseshoe. Design work for the planned Highway 403 Brantford-to-Woodstock link, the twinning of the Burlington Bay Skyway, and Highway 406-QEW connection at St. Catharines was also pushed forward.

People Movers

Public transit retained a high profile as fuel costs continued to climb, and new emphasis was placed on energy conservation by the Ministry and government as a whole.

MTC continued to provide transit subsidies to Ontario municipalities—a total of \$74,367,600 in operating subsidies and \$58,143,000 in capital assistance.

At the same time, construction for the new Toronto/Milton GO Transit rail line was well underway with completion slated for the fall of '81. An order was placed for 71 new bi-level commuter cars for GO rail operations. Total expenditure on GO rail and bus operations during the fiscal year totalled \$66,158,312.

An event of major importance took place during the year, when the Urban Transportation Development Corporation (UTDC) and MTC announced that Vancouver had purchased the Ontario-developed light-rail transit system. The value of the sale was \$650,000,000.

Subsequently, the government announced it would invest \$30.6 million

in UTDC as part of the BILD Program. Funding was designated for advancing UTDC's capability to produce and deliver intermediate capacity transit systems.

Pre-engineering for the Hamilton ICTS Project continued; the government also decided to use ICTS technology for Toronto's Scarborough transit corridor and announced that it was assessing the feasibility of an ICTS line for Toronto's waterfront.

Energy Conservation

Along with public transit, MTC's energy conservation programs played a significant role in Ministry operations. Work continued under the Transportation Energy Management Program (TEMP)—a joint effort by MTC and the Ministry of Energy.

The government/industry "TruckSave Program" produced a successful fuel economy campaign and training program for commercial fleet owners and owner-operators. And the second phase of the "Drive Propane" program went into high gear as part of a broad plan to reduce overall fuel consumption.

In conjunction, the government eliminated the road tax for non-petroleum fuels, including propane, natural gas, alcohol and hydrogen. The sales tax on

vehicles powered by propane was also eliminated.

As part of its overall energy conservation program, the government also announced that it would encourage municipalities to replace gas and diesel buses with trolley buses, and that it would subsidize the electrification of municipal transit systems at a higher rate than the existing subsidy.

Again, in association with BILD, MTC carried out a feasibility study to determine how to electrify the GO rail transit system, with the intent of proceeding to the design phase as soon as possible. Top priority was given to the Oakville-Pickering line.

MTC also announced plans for an electronic freeway management system for both the proposed Burlington Bay Skyway project and Macdonald-Cartier Freeway between Highways 427 and 404. Projected benefits of these systems would be to reduce overall traffic congestion and more efficient use of the roadways.

Seven new commuter parking lots were completed adjacent to freeway interchanges during the year. In all, MTC operated 13 commuter parking lots with almost 11,000 parking spaces. MTC also continued its support for company-sponsored vanpooling.

Air Services

The Ministry sustained a continuing interest in intra-provincial air transportation and, since 1968, has sponsored construction of 16 remote airports in Northern Ontario under the "Remote Airport Construction Program."

During this fiscal year, airports were completed at Deer and Sachigo Lakes, and construction began on the airport at Kasabonika. Minor improvements were made to 13 other remote airports in the north.

Under the Municipal Airport Construction Program, and in conjunction with the Ministry of Northern Affairs, funding was made available for airport development at Geraldton and Chapleau in support of Ontario's forest protection program.

In addition, the Ministry of Northern Affairs and MTC announced funding would be made available for construction of an airport at Killarney, south of Sudbury.

Under the BILD program, the government also announced that it would extend the Municipal Airport Construction Program to Southern Ontario, and encourage the expansion of local airports to accommodate STOL services.

Task Forces

Two provincial task forces set up in the previous fiscal year — the Great Lakes/Seaway and Provincial Rail Policy — both presented final reports to the Minister.

The Provincial Great Lakes/Seaway group made 47 recommendations after an exhaustive review of 80 briefs and submissions, following public meetings held throughout Ontario. Special reference was made to the capacity of the seaway system to handle ever-increasing traffic over the next decade, and specific maintenance problems.

In conjunction with the task force report, the government announced as part of the BILD Program, that it would commit \$12.5 million over five years towards a \$50 million drydock upgrading and expansion program at Ontario's three major shipyards — Collingwood, Port Weller and Thunder Bay. The balance of the investment would be sought from shipping companies and the federal government.

In addition, to foster harbour and small port development, and in order to make fuller use of the economic and job-creating potential of these facilities, the government announced formation of an Ontario Harbour and Small Ports Commission with authority to invest up to \$10 million annually.

Planning for the announced port development at the Bruce nuclear facility on Lake Huron and expansion of Oshawa Harbour fall under the aegis of the new commission.

The Task Force on Provincial Rail Policy's final report included almost 180 recommendations, relating to all aspects of rail transportation in Ontario, with a strong recommendation to expand passenger rail services and replace existing commuter equipment with modern high-speed commuter trains.

The group also recommended a stronger role for the Ontario government in matters concerning railway transport. To this end, MTC set up a Rail Office, responsible for pursuing this new policy direction, plus a Marine and Pipeline Office.

In association with this report, the government announced that it was prepared to invest \$125 million in a systematic program of improvements in the Toronto-Windsor corridor to improve both freight and passenger service. And as part of the investment, the government would also support development of new Ontario-based rail technology, particularly adaptation of rail plant and equipment for climatic conditions in the North.

Trucks and Buses

As in previous years, MTC worked closely with the trucking industry in formulation of trucking and bus regulations.

During the latter half of the fiscal year, preparations were completed for the introduction of the Canadian Agreement on Vehicle Registration (CAVR) which went into effect April 1, 1981.

This involved a Canada-wide (initially six provinces) licence reciprocity plan for interprovincial truck and bus operations, permitting Ontario carriers to travel freely in other provinces, using a single licence plate.

In addition, a new Prorate Office opened at Downsview to administer the CAVR program and process all applications. A new Temporary Registration Permit system also came into effect, simultaneously with CAVR to accommodate commercial vehicle making corridor movements across Ontario.

New legislation made it illegal to rent or charter a bus which didn't have a Public Vehicle Licence. This legislation was directed at unlicensed bus companies operating charter trips and tours under alleged lease arrangements.

Highway Traffic Act

Amendments to the Highway Traffic Act included an amendment prohibiting the coating of windshields and windows to the left or right of the driver's seat.

An important change to the HTA allowed for flexibility in application of medical standards for classified driver licence holders. This affected experienced drivers holding, or who had held, licences in higher categories, who had been downgraded for medical reasons. They now have the right to appeal to the Registrar of Motor Vehicles and the Licence Suspension Appeal Board.

Nineteen-Eighty year-end statistics showed a slight decline in fatalities on Ontario highways and roads, from 1,560 in 1978, to 1,506 in 1979.

The following is a summary of expenditures reported by the financial comptroller for the fiscal year 1980/81 with comparative figures for the preceding year:

	Fiscal Year Ending	
	March 31, 1980	March 31, 1981
Ministry Administration.	\$ 29,690,007	\$ 29,800,009
Planning, Research & Development.	22,980,541	11,731,838
Safety and Regulation.	43,060,212	45,769,268
Provincial Roads.	450,277,495	494,295,700
Provincial Transit.	73,517,651	66,158,312
Air.	3,677,143	4,475,193
Municipal Roads.	388,833,175	424,164,066
Municipal Transit.	124,645,789	133,768,777
Communications.	1,881,044	2,163,206
TOTAL GROSS EXPENDITURE.	\$1,138,563,057	\$1,212,326,369

Deputy Minister's Office



Teleconferencing effective alternative to travel

Communications Division

This division's mandate is to promote the interests of Ontario users of communications services while contributing to the strength of such manufacturing and supply industries in Ontario.

During the 1980-81 fiscal year, division staff was involved in a broad range of activities including:

- participated in federal-provincial constitutional negotiations in an effort to achieve a better balance in the distribution of government responsibilities for communications;
- participated in the Ontario Government Microelectronics Task Force to determine the societal impacts of the information society and appropriate industrial strategies for the microelectronics industry;
- continued development of comprehensive policy papers dealing with cable and broadcast issues in Ontario;
- participated in federal-provincial working groups, resulting in the completion of reports for the consideration of the communications ministers on:
 - cable delegation; competition/industry structure; industrial impacts of communications policies.
- participated in interprovincial working groups to determine specific proposals for:
 - interprovincial educational satellite television network; regulation of interprovincial telecommunications (TCTS); private, intercity microwave networks.
- submitted extensive briefs to the CRTC on the extension of service and pay television;
- continued extensive work jointly with the federal government and the Ministry of Northern Affairs to improve existing cable/broadcast services in northern Ontario, including direct-to-home broadcast satellite experiment;
- monitored and provided input to the federal government and the CRTC on a number of matters including:
 - frequency spectrum; policies with respect to ownership and licensing of satellite earth stations; terminal attachments.
- presented in concert with MIT Ontario's policy position on vertical integration between Bell Canada and Northern Telecom to the Restrictive Trade Practices Commission; cross-examined witnesses concerning the industrial benefits to Canada;
- carried out extensive interventions before the CRTC concerning:
 - (1) the application by Bell Canada for a general rate increase for telecommunications services;
 - (2) the application by Trans Canada Telephone Systems for an increase in long distance rates;
- presented an extensive brief to the CRTC with respect to new approaches to stimulate the Canadian program production industry, with respect to Canadian content provided by TV broadcasters;
- established a mechanism within the Attorney-General's office (Board of Negotiation) to resolve a dispute involving Ontario Hydro, Association of Municipal Electrical Utilities and the Ontario Cable Television Association concerning pole attachment rates;
- carried out assessment studies of specific technologies, including microelectronics, land mobile, and intercity microwave;
- pursued introduction of audio-teleconferencing as a substitute to transportation in both government and the private sector.



Aerial view of Highway 401 at Allen Expressway

Management Improvement Branch

Branch staff supports the Deputy Minister and senior management by actively generating and capitalizing on opportunities to improve the effectiveness of ministry management. As a result, substantial monetary and manpower savings were realized last year. The major effort in 1980/81 concerned changes:

- to make the head office structure more compatible with a decentralized organization;
- to attain a corporate structure for setting strategic direction and corporate policy;
- and clearly define accountable program executives responsible for each major program.

More specifically, this entailed:

- naming of the assistant deputy ministers and an executive director (of Communications) as program managers for each MTC program, respectively, and the reorganization of the supporting head office executive structure;
- establishment of a corporate policy planning unit serving all program managers and the Ministry's Strategic Policy Committee;
- creation of an evaluation unit responsible for assessing overall MTC goals and objectives and the adequacy and consistency of policies;
- consolidation of Policy Planning and Research and Development;
- establishment of visible organization units responsible for individual modes of transportation;
- establishment of dedicated planning and evaluation units for each program/mode;
- creation of a new Highway Program Development Branch, replacing the former Priority Development Branch;
- creation of a new Highway Operations Branch consolidating the former Design and Construction and Maintenance Branches;

- creation of a Property Office to replace the former Property Branch;
- further resolution of the respective roles of head office and regions with respect to maintenance, remote sensing and electrical delivery functions;
- creation of a new Financial Planning and Administration Branch, resulting from an integration of the former Financial Branch and former Financial Management Services Office;
- establishment of a restructured Highway Carrier Section to improve accountability and the system of revenue control;
- completion of the ground work and a long-range plan to restructure the organization associated with the transportation regulation program.

In addition, ongoing projects include a number of initiatives with longer term pay offs, specifically addressing:

- development and refinement of a ministry-wide performance budgeting system;

- evaluation of privatization of various MTC functions;
- integration of internal management of information with the freedom of information initiative;
- focusing of the internal audit function on comprehensive auditing;
- optimization of human resource planning, personnel, industrial relations and occupational health and employee safety activities;
- development of ways to become more efficient and responsive to computer system services and information processing demands taking advantage of the rapidly improving technology.

Staff activities continue to be driven by the MTC's strategic objective of attaining the maximum effectiveness and efficiency from ministry resources. Pursuit of strategies dealing with improved utilization of human resources, management systems and procedures and organization structure will support achievement of desired results.

Highway Program Development

The Priority Development Branch was reorganized in the summer of 1980 and renamed. The nucleus of the branch remains the same, with elements of the provincial roads planning office providing the support necessary to fulfill the additional responsibilities. Staff's overall responsibility is to provide support to the provincial highway program.

The highway program admin office manages the current and multi-year capital construction work plans of the ministry and provides expenditures and budget control.

Long-range plans for the provincial highway system are developed by high-

way program planning personnel who analyze and recommend viable plans within financial and planning period limits to ensure maximum effectiveness of legislated funds.

The ministry's capital road construction program consisted of 2,329 work projects at the end of the fiscal year. Of these, 314 were added during the year. Approximately 974 groups of projects had active pre-engineering schedules. And 128 contracts were advertised. An additional two contracts were advertised, but not awarded and, subsequently, deferred.

Strategic Policy Secretariat

The Secretariat supports the Minister, Deputy Minister and the Strategic Policy Committee in the development and implementation of Ministry Strategic Policy and the Management of the Committee's daily business.

During the past year the Secretariat has:

- managed the business of the Strategic Policy Committee, the Ministry's senior executive committee;
- maintained liaison with the central agencies of government and other ministries on behalf of the policy committee;
- organized and managed the strategic policy development and the planning process, specifically, the establishment of the format and content of the Ministry's strategic plan and publication of the Ministry's Strategic Planning Guidelines 1982-87;
- assisted the program and resources planning committees in the continuing task of producing long-range plans to further implementation of the strategic planning process;
- co-ordinated surveys and analyses of the external economic, social and institutional environment in which the Ministry functions as reported in the Ministry's position and prospects summary;
- co-ordinated Ministry responses to briefs and submissions received from associations and the public and to requests for policy-related information from government sources;
- provided staff assistance to the Deputy Minister for the review of the Toronto Area Transit Operating Authority;
- represented the Ministry in the government's development of any freedom of information legislation;
- provided staff assistance in the preparation of papers on rail in Ontario as input to the Ontario Task Force on Rail;
- produced five comprehensive documents describing the development of the strategic planning and policy development process in the Ministry over the past five years;
- participated in a government-wide effort co-ordinated by Management Board Secretariat to document and display management processes and tools in the Management Standards Project and management standards showcase; and
- co-ordinated a number of developmental moves for MTC staff and participated in staff secondments to further the Ministry's affirmative action plan.

Public and Safety Information Branch

Public and Safety Information staff members were responsible for the Ministry's internal and external communications programs.

Over six million pieces of safety-related materials were produced during the year, including brochures, booklets, and periodicals such as the Driver's Handbook, the Ontario Traffic Safety Bulletin, MTC News and safety curriculum for all Ontario separate and public schools.

In the past year, staff answered over 120,000 telephone requests for up-to-date road information; responded to 60,000 requests for general information; and replied by mail to about 1,500 letters requesting information.

Public relations staff also produced in-house radio commercials as well as other audio-visual materials; and developed display advertising for newspapers and magazines.

Production of informational films by audio-visual staff continued with completion of a trilogy of safety films titled "Three for the Road" which were produced for high school driver education courses.

And two of these films, "Power Under Control" and "The Alcohol You" received awards from the National Safety Council in the United States.

The audio-visual unit produced 39,000 black-and-white photographs, 19,000 slides and carried out production of six film strips written for the training of MTC support staff.

Sixty speeches and statements for the Minister and Deputy Minister were researched and written. Production of news releases — both general and contract awards — totalled 360.

Other branch responsibilities included the updating of the "Safety Caravan" sent to fall fairs, winter carnivals and similar events; organizing official functions and opening ceremonies; planning and staffing the MTC display each year at the Canadian National Exhibition.

Affirmative Action Program

In February, 1980, Management Board approved a new directive to strengthen provincial affirmative action programs, stressing target setting and an increase in the level of accelerated career development for women.

Office staff developed and implemented programs to fulfil its new role and mandate including two major initiatives: the design and development of a system to assist managers in undertaking and reporting affirmative action commitments, and a career development system for women.

During the 1980-81 fiscal year, additional program activities were highlighted by:

- initiating a summer student program to assist women in office services and clerical services positions;
- initiating the re-organization of the Affirmative Action Council; including election of an executive; ex-official appointed to the executive;
- seven women received accelerated career development through the use of the incentive fund;
- monitoring 23 competitions;
- participating in the Government Affirmative Action Council's task forces on regional delivery and outreach recruitment;
- assisting council members in preparation of a unit rep. manual;
- sponsoring the annual affirmative action conference and a one-day workshop for 60 unit representatives and council members;

Provincial/Municipal Transportation

Transportation Programs Division

This newly created division assists the Ministry in providing a focal point for the identification of the province's transportation needs. Five major travel modes are involved for which staff develops the necessary program planning, implementation of the resulting plans and proposals, and administering the several financial subsidy programs. The division consists of five offices, one for each travel mode — air, rail, transit, municipal roads and marine and pipeline.

The major responsibility is to identify Ontario's public interest in each mode then determining the courses of action to achieve overall provincial transportation goals.

Where federal jurisdiction is involved, divisional staff presents the provincial position and works to obtain the desired federal participation or policies. This necessitates staff representation before federal regulatory bodies to ensure that the provincial viewpoint is included in their deliberations.

and Sachigo will be completed in the summer of 1981. In addition, modest construction of the airport at Kasabonika has been undertaken with completion scheduled for 1983. The 1980 costs for maintaining these airports was \$1,620,000.

The 1980/81 subsidy budget for the construction of municipal airports was \$2,132,000. Significant developments under this program took place at Ear Falls, Cochrane, Brockville, Elliot Lake, Hornepayne, Hearst, Wawa and Tobermory. The budget for municipal airport maintenance, under which 13 municipalities received assistance, was \$309,000.

Office staff also monitored norOntair's performance, administered by the Ontario Northland Transportation Commission; and completed a policy study on the future of the norOntair service in conjunction with MNA.

Also, over the past year, the Air Office in conjunction with the Legal Services Office, responded to 26 different policy issues and air service applications before the Canadian Transport Commission. This included participation in three public hearings and comments on two proposed changes to Air Carrier Regulations.

Air Office

The Air Office is the focal point of the Ministry's aviation activities with a broad responsibility for program development and management.

Staff initiates provincial air policies and promotes the development of an adequate Ontario regional air service, working co-operatively within the federal government's area of jurisdiction to accomplish this goal. They also represent the province on federal aviation initiatives and air service applications which

affect industrial air service requirements and the travelling public.

Management of the Ministry's municipal airport construction and maintenance programs, while providing technical support to the Ministry of Northern Affairs (MNA) for the remote airport and norOntair air services programs, is another function.

In 1980, MTC operated and maintained 15 remote airports in northern Ontario. Two additional airports at Deer Lake



Remote airports ease supply problems to isolated areas



New emphasis on rail transportation

Rail Office

The Rail Office, established in July of 1980, ensured that the interests of the people of Ontario were fully represented at rail-related activities and assisted in promoting the development of a suitable Ontario rail-passenger and freight system.

Several developments occurred which will broaden the role and mandate of the Rail Office in the future. These included the Ontario Task Force on Provincial Rail Policy which examined and recommended policy on rail transportation, and the announcement of the Board of Industrial Leadership and Development program (BILD) which committed \$125 million over the next five years toward rail upgrading.

For some time MTC has been involved in monitoring and developing policies and positions on rail matters. The greatest activity over the past year took the form of interventions before the Canadian Transport Commission (CTC) involving passenger-train discontinuance applications, branch-line abandonment applications, branch-line abandonment applications, and freight rate cases.

Some matters included:

- The Winnipeg-Farlane passenger train service;
- White River to Sudbury budd car service;
- Marmora subdivision abandonment application;
- Haliburton-Lindsay branch line abandonment application.

Staff was involved in such passenger issues as the Toronto-Fort Erie service; worked closely with VIA Rail to re-establish direct rail passenger service from Toronto to New York via Niagara Falls as a prerequisite for termination of the previous service through Fort Erie. This was approved by the CTC and service commenced in April of 1981.

In the past, the MTC dealt with numerous other branch-line abandonment applications. It was in response to three such applications in the Bruce Peninsula area, as well as other pending and anticipated applications, which prompted the government to initiate a whole new approach to the abandonment of rail lines. It stressed a network rationalization approach on an area-wide basis.

Experience to date from the Bruce Study reinforced the province's position

that the area-rationalization method, as undertaken in the Bruce area, will be beneficial in considering future abandonment cases.

Ontario, in many cases, took its lead from other provinces in federal reviews of regulatory matters. Most, related to railway regulation and administration, are long-term projects which require continuous monitoring and action by the staff, including:

- Review of railway costing order R-6313;
- Uniform classification of accounts;
- Cost of capital study;
- Rate arbitration process;
- CTC jurisdiction over private sidings;
- Statutory limit of railway liability;
- Rail safety issues.

Transit Office

Transit office staff is responsible for transit program policy development and evaluation, administration of municipal transit financial-assistance programs, development and management of operational improvement and demonstration projects, and carrying out or assisting in planning for municipal and provincial transit system improvements.

A total of 63 municipal transit systems received financial assistance in accordance with the operating assistance policy initiated in 1977. This policy provides subsidy to cover 50 per cent of the theoretical net cost calculated on the basis of a target revenue/cost ratio established for each municipality plus 25 per cent of the shortfall against target.

This approach provides an incentive for the municipalities to maximize their performance in order to pay a lesser share of the total operating costs. Municipalities experiencing an above-normal population growth rate could also receive

additional assistance. In addition, municipalities introducing a new major facility are eligible to receive special subsidy for the initial years of operation. Agreements will be developed for such undertakings on an individual basis and incorporate municipal initiatives with respect to co-ordinated land use and transportation policies—also the operating subsidy terms appropriate to the particular project.

The first such agreement, for the proposed Scarborough Light Rapid Transit Line, was developed and signed by representatives from Scarborough, Metro Toronto and MTC during the year and work was initiated on applying this concept to the Spadina subway line.

A new program to provide subsidy assistance to municipalities for the provision of transportation for physically disabled persons began in July 1979. The amount of subsidy is based on 50 per cent of capital and operating expendi-



Prototype of articulated bus

tures. For the year 1980, 25 municipalities applied for a total of \$2,700,000 in subsidies.

Several initiatives were undertaken to improve transportation services for physically disabled persons, including determination of appropriate improvements to existing facilities, increased subsidy limits, development of training guidelines for the driver of specialized services, and investigation of necessary vehicle safety requirements.

In the areas of program and policy development, additional subsidy terms were developed to encourage the implementation of reserved transit lanes and the substitution of electric trolley buses for conventional diesel buses. And in co-operation with the Ontario Urban Transit Association (OUTA), the development of an Ontario urban transit fact book was undertaken. The initial publication, containing 1981 information, will be issued next year.

The office continued to provide financial and technical assistance to municipalities for bus, rapid transit and related operational projects. Major undertakings included an operational review of Mississauga Transit, the Ottawa-Carleton Eastern Transitway Study, the London Terminal Transit Study, and the Hamilton-Wentworth ICTS Study.

Within the GO Transit area, staff initiated a review of inter-regional transit co-ordination. As well, a study of GO rail electrification and the Lakeshore West GO Bus Study were completed. The extension of GO Rail services beyond present terminals was examined and more detailed work is being initiated.

A significant effort continues to be directed towards conservation of energy in transit operations.

A project to demonstrate the use of Telerider passenger information systems is underway. These computer-based sys-

tems provide automatic telephone information about scheduled bus arrival times, and have proved to benefit transit users, resulting in increased ridership. One has already been installed in Ottawa and two more are scheduled for installation. They will be operational by the end of 1981. One is in Toronto and the other will service a number of smaller municipalities in central Ontario — Kitchener, Waterloo, Guelph, Brantford and potentially, Cambridge, Stratford and Woodstock.

Subsequent to awarding a contract to the diesel division of General Motors of

Canada Ltd., for 53 articulated coaches, GM completed the R&D required and has produced one prototype bus which was tested during the winter and spring of 1980-81. Delivery of production models to fill out the order will begin in September of 1981 for Mississauga, Ottawa, Hamilton and Toronto, where operational testing will be carried out for two to three years.

Funding the development of light rail transit vehicles through the Urban Transportation Development Corporation was continued.

Marine/Pipeline Office

This office was created within the Transportation Program Division in 1980. It was not formally in place until early in 1981 when activities of the Great Lakes/Seaway Task Force were completed.

The Great Lakes/Seaway Task Force, set up in March of 1980, was given the task of examining all the important issues concerning the seaway and developed a framework upon which the province could create a marine policy.

While marine transportation predominantly falls within the jurisdiction of the federal government, the economic importance of the Great Lakes/Seaway System to Ontario has made it apparent that the province must take a position on this essential transportation mode.

An independent group, the task force was chaired by a retired steamship company owner and comprised of industry, labour, environment and government representatives. Its recommendations were presented to the minister in May 1981 and this office will review and evaluate the recommendations.

Staff is also responsible for co-ordinating the implementation of the Board of Industrial Leadership Development (BILD) marine initiatives, including:

1. Assistance for the three dry-docks in Ontario — creating a 1000 foot vessel building capability at Collingwood while improving the repair and building of seaway-size vessels at Port Weller and Port Arthur.
2. Analysis of the feasibility of a harbour to be built in conjunction with the Bruce Energy Centre project. This will be done jointly with the federal government.
3. Assistance to Oshawa harbour to encourage expansion and improvement to the existing facilities to allow ROLL-ON, ROLL-OFF facilities and increased docking capacity for full-size seaway vessels.

Staff will be involved in the activities surrounding co-ordination of the 25th anniversary of the St. Lawrence Seaway official opening slated for 1984. The building of the seaway was a major engineering feat and succeeded in opening the Great Lakes to world, water-borne



Water transportation important alternative

commerce. Its importance remains, but much more in its role as part of the entire Great Lakes/Seaway System. It is this perspective the province will emphasize in 1984.

The three major areas of concern identified by the task force and, on which the

office will focus its activities, are; lack of public awareness and commercial promotion of the Great Lakes/Seaway System; the inability of the system to handle capacity demands; and a series of operational and maintenance recommendations related to smooth, efficient functioning.

Staff will also investigate pipelines as a transportation mode in Ontario, reviewing the pipeline system — and its role as a mover of goods (both present and future) — to determine provincial interest while developing policy.

Municipal Roads Office

The Municipal Roads Office is responsible for program planning, policy development and evaluation, as well as overall program administration for all municipal road subsidy programs.

Municipal Programs

During the 1980/81 fiscal year, road grants were provided to 830 municipalities and 46 Indian Reserves under the Public Transportation and Highway Improvement Act. In addition, 39 municipalities received subsidy under the Traffic Signal Program.

The distribution of road funds are shown below.

Highway Connecting Link Program

The road needs information for the highway connecting link system was converted to metric measurements and standards by the combined efforts

of district municipal and head office staff in 1980.

The financial program involved a Ministry construction expenditure of \$15,538,500 on 120 projects. An additional \$1,432,500 was spent on maintenance activities in towns and villages.

Development Road Program

This work is carried out under agreement with the Ministry and subsidy may be up to 100 per cent of the total cost. The road remains under jurisdiction of the municipality with the work being done either on a day-labour basis or by contract. Ministry expenditures of \$6,307,200 involved 58 projects.

Unincorporated Areas

For maintenance purposes, the Ministry contributed \$3,355,300 to: 223 local roads boards; 21 statute labour

boards; 29 Indian Reserves; and 151 other groups on public roads not under the Ministry's jurisdiction. A further sum of \$2,441,800 was spent, without local participation, on road and bridge improvements, involving 89 projects.

Municipal Bridge Inventory

In 1978, MTC completed a review of all provincial municipal bridges, identifying those with serious deficiencies. The Ministry has been giving high priority in providing supplementary funds for the rehabilitation or replacement of deficient structures, and will continue to do so.

Large Lower Tier Program

In 1980, the 130 municipalities in the large lower tier funding program completed the conversion of their road needs information to metric measurements and standards. This included a complete review of the condition of their roads and an update in the bench mark costs used for costing recommended improvements. In 1981, the program is being expanded to include the Townships of Glanbrook, Sidney and Ernestown.

Municipal staff have and will continue to meet with the municipalities, on a district basis, explaining in detail how road needs information is used to determine annual construction and maintenance allocations, and how municipalities can make use of the information.

Demonstration Project

In conjunction with the Policy Planning and Research Division, funding was provided to conduct demonstration projects in the Regional Municipalities of Durham and Waterloo and the City of Brantford on the effect of a computer controlled traffic signal system on fuel conservation.

	Total Kilometres of Road	Approved Expenditures	Subsidy Paid
		\$	\$
Metro Toronto	722.1	37,007,617.99	18,500,000.00
Regions	6,638.6	111,404,641.65	64,566,697.58
Counties	12,592.5	77,361,771.09	51,155,373.24
Townships (Including Indian Reserves)	74,949.7	156,467,106.98	108,354,074.72
Urban Municipalities	33,532.1	341,134,174.24	145,060,385.84
Traffic Signals		5,675,527.32	2,814,783.43
Total	128,435.0	\$729,250,839.47	\$390,451,314.81

Policy Planning and Research Division

The last fiscal year saw a change in the organization of the Research and Development Division. Now amalgamated to include both the Policy Planning and Research and Development Branches, the group consists of a total of two branches and two offices geared to searching for the best possible service in transportation and communications.

Policy Planning and Research Division

This division is comprised of the executive area, Research and Development and Policy Planning branches, transportation outlooks office and Transportation Energy Management Program (TEMP).

Administrative Services

Staff provided general admin. services for the division, including budget control, manpower planning, program and project approval, plus processing assignments to consultants and universities. They also co-ordinated R&D policy implementation; for and overall monitoring and assessment of resource management; recommended and maintained long-range plans; evaluated programs and projects on their effectiveness; accounting and assessment processes (multi-year planning, management-by-results, etc.); and, acted as liaison between the RPC committee and other financial management functions.

Assistance was provided to the intermediate capacity transit system review activity and specialist consultation and assistance were also provided to UTDC in the areas of guideway alternatives and design, transit vehicle truck performance, propulsion system design and guideway testing.

Several studies of the feasibility of air cushion technology in the provision of ferry services were initiated.

Truck splash and spray suppression devices were investigated.

The driver simulator model, developed under contract by the University of Toronto Institute for Aerospace Studies, will soon be able to include truck drivers controlling articulated vehicles.

Research and testing related to the safety and operation of commercial road vehicles continued; research was completed on the evaluation of devices to prevent/control a tractor-semitrailer jackknife.

The wheel anti-lock system to prevent wheel lock-up, the major cause of a jackknife, proved very successful in MTC testing.

Transport and Vehicle Systems

Personnel, here, conducted research, development and demonstration in transport planning techniques, operations, transit, transport modes and vehicles while supporting municipal transit properties and the transportation industry.

Work was initiated on techniques for forecasting road vehicle populations for the province; and a continuing study of the appropriate ranges and conditions of applications of various transit modes was carried out.

A study was commissioned and completed on the feasibility of computer-aided scheduling for transit services for the physically handicapped, plus the development of safe wheelchair and passenger restraint systems.

In support of TEMP, staff implemented the promotion of car and vanpooling projects at various municipalities and with employers.

Development work continued on rail-vehicle noise and truck dynamics, and joint projects initiated with the Toronto Transit Commission.

Support on rail technology was provided to the Government's Railway Task Force.

Transport infrastructure research was undertaken on load calibration for elevated guideways, and more cost-effective design. The development and refinement of the Bridge Design Code continued, and a major test program of highway bridge dynamics was undertaken.

Control Systems

Staff conducted research and development in transportation control systems. Major activities and accomplishments during the past year included:

Implementation of the Municipal Traffic Control Systems (MTCS) Project for installation of computerized traffic



Trucks are part of traffic scene on Highway 401



Keeping an eye on QEW traffic

control in Brantford and the Regional Municipalities of Durham and Waterloo;

First stage of Highway 401 Traffic Management System implementation (Highway 427 to Highway 404);

QEW Freeway Surveillance and Control System, including software development for the new traffic control computer and colour graphics systems;

Automatic telemetry system for centralized monitoring of the ministry's 21 permanent traffic counting stations throughout Ontario;

A study identifying energy impacts of various traffic management strategies;

A study of the application of process control technology to improve efficiency in ministry maintenance, construction, equipment and quality control areas;

Technical support to the MTC's type 170 microprocessor traffic signal controller program.

A co-operative project with CNCP Telecommunications to evaluate an infrared laser communications system;

Continued development of the SSTOP signal timing optimization program, as well as other traffic systems analysis programs.

Human and Social Factors

Formerly D&V Research, personnel have the responsibility of conducting human factors research in support of various ministry programs, with special emphasis on transportation regulation programs.

Research was directed toward the completion of ongoing projects and development of new research initiatives in the area of driver training, education, qualification, operator's safety, school bus signals, truck compliance, audio teleconferencing and socio-economic areas, including the following major activities and achievements:

Completion of a study to evaluate the driver counselling interviews conducted with drivers who have reached nine demerit points. Based on the results, a professional development program for review counsellors was implemented. A follow-up evaluation is currently being conducted;

A study is being conducted to comparatively evaluate the current driver education course in Ontario secondary schools;

A telephone survey of Ontario drivers

to determine the knowledge and attitudes of drivers with respect to the demerit point system;

Evaluation of the existing driver's licence tests;

Completion of the development of a self-report instrument to measure car and motorcycle driving exposure;

Completion of the assessment of the perceptions of truck drivers and local citizens in the north on the effectiveness and safety of fully-paved shoulders;

Completed a teacher's manual to supplement the three part film series, "Three for the Road";

Initiated an experimental program for motorcycle licensing that will provide an evaluation of the safety benefit of current licensing procedures relative to new procedures based on the Motorcyclist-In-Traffic (MIT) test and associated written tests;

Completed the pilot test for the effectiveness of the various school bus light configurations;

Initiated an evaluation of the efficiency and effectiveness of the truck inspection system;

Completed the survey and analysis of overweight permit vehicles, and development of guidelines for overweight/oversize permits;

Completed a survey of the on-board vehicle weighing devices to improve truck operators' awareness of the actual axle weights at all times;

Completed an evaluation of vehicle weighing procedures;

Evaluation of scale approaches to all truck inspection stations equipped with single short platform scales in Ontario;

Compiled and evaluated, the measurement of social and personal costs of motor vehicle accident injuries and the impact of MTC road spending on the economy.

Transportation Outlooks Office

This office was set up to identify prospective opportunities and threats gained through systematic, multi-disciplinary studies of medium to long-term futures.



Hot mix recycling

Pavement Research

Staff continued to develop better methods of pavement maintenance, maintenance alternatives, and researched new ways for protecting pavements from environmental effects.

Major activities and achievements in 1980 included:

Active participation in two Transportation Research Board National Workshops on Pavement Management, held at Phoenix, Arizona, May 1980, and Charlotte, B.C., September 1980;

Monitored and reviewed the use of hot-mix recycled pavement throughout the province, with a view to preparation of promotional material;

Finalized report on "pavement condition and performance observations, Brampton test road". The major findings were: the increase in gravel equivalence of the deeper portions of thick asphalt concrete pavement from 2 to 3; confirmation that riding comfort index is a major contributor to serviceability was also found.

Developed "preventive pavement maintenance concepts."

Paving in cold areas (PICA) research was initiated with Japan. This research theme was approved at the 4th Canada/Japan Consultations on Science and Technology. Two common interest areas in PICA were identified, including "additives in asphalt", and "prevention of reflection cracking."

Materials and Environment

Section staff includes concrete research, technology resources research, earth and environment research, and highway and environment research.

Concrete Research

Staff focused on the physical, chemical and mechanical properties of portland cement concrete with particular emphasis on the durability of concrete in highway structures. Activities concentrated on methods of identifying and repairing corrosion damage in reinforced concrete. Other projects included investigating the performance of other materials used in bridge construction.

Highlights included:

An investigation of the condition of bridge substructures;

Assisting in the development of a policy for durable bridge substructures;

Developing techniques for the identification of deterioration in asphalt-covered bridge decks;

Evaluating the performance of demonstration projects using concrete overlays and waterproofing membranes for bridge deck repair;

A preliminary investigation of the performance of atmospheric corrosion resistant structural steel;

Work on the development of a method to measure the electrical impedance of concrete;

Publication of four papers on the subject of the air void system in concrete; the detection of deterioration in bridge decks; methods of repairing bridge decks; and an investigation on the performance of concrete overlays.

Technology Resources

Staff were involved in the advanced application of physical, chemical and electrical processes while demonstrating construction and winter maintenance techniques.

Other projects included:

An investigation into the possible use of water materials, including the use of excess sulphur;

The use of ground rubber from old tires as an additive to asphaltic concrete pavements;

The successful application of cathodic protection to bridge decks.

Earth and Environment Research

Section staff continued research into using earth resources in highway building and minimize man-made impacts on the highway user or environment from highway construction or operation.

Engineers worked to develop means of minimizing adverse effects of erosion, scour and silting; to improve practices for weather-dependent maintenance and operations, and to develop techniques for measuring environmental impacts, including:

Surveillance of environmental effects of highway facilities in Southern terrains;

The continued study in the hamlet of Ballantrae to monitor the effect of winter salting operations on the groundwater and local wells affected by winter deicing chemicals;

The establishment of experimental natural regeneration plots adjacent to highways;



Sound barriers help cut traffic noise

The hydraulic study of bridge deck drains, ditch inlets and sewer inlet drains in selected design conditions;

The snow drifting control studies utilizing new types of snow fence; and remedial grading measures;

Studies developing a shale classification method for use of shales in high-way construction'

The experimental site in Raith, utilizing HI Styrofoam to correct deep-seated, severe longitudinal cracking in a longer section of pavement;

Highway Environment Research

Personnel dealt with physical aspects of road surfaces, roadside hazards, and environmental factors related to lighting and noise, including:

Acoustic consulting and design services to protect sound levels for complicated topographical sites;

Measurement of the acoustical performance of newly-constructed noise barriers and sound absorptive barriers;

A feasibility study on the possibility of a semi-automation of the stereophotographic method for determining pavement texture parameters and predicting skid resistance of pavement surfaces.

Experimental Demonstration and Technology Transfer Office

Staff provided support for experimental work by R&D project groups, including providing engineers, technicians and drivers; electronic, acoustical and strain gauge instruments, and staffing test track, dynamometer and laboratory facilities.

Transportation Energy Management Program

TEMP is the Ontario government's program for reducing the province's oil dependence in the transportation sector, carried out in co-operation with the Ministry of Energy. TEMP's goal is a 10 per cent savings by 1985, over the conservation expected from the corporate average fuel economy (CAFE) standards.

TEMP's objectives included:

1. Improving the efficiency of transportation technology;
2. Improving the efficiency of transportation operations;
3. Using more efficient modes;
4. Developing and promoting alternatives to oil;
5. Reducing travel requirements.

These initiatives comprise six program areas:

Municipal and intercity transportation energy conservation where staff activities included:

Computer controlled traffic signal demonstrations;

The review of energy impacts of various traffic control strategies;

The first MTEAC newsletter distributed to 2,500 municipal offices;

The completion of the first phase of the Metro Toronto Area Transportation Energy Study;

The undertaking of a similar study in Hamilton/Wentworth;

The completion of a Go rail electrification study;

Ridesharing

A car and vanpool demonstration program;

An area-wide ridesharing service review.

Drive Save

Major accomplishments of this program included:

The development of an energy-efficient driver-training program;

The initiation of a media information program to encourage energy efficient auto purchases;

Evaluation of the fuel economy impacts to reduce cold weather fuel economy degradation;

Assessment of the energy savings impact of reduced vehicle speeds;

Testing of the effects of modified maintenance;

Assessment of the effects of using fuel efficient lubricants;

Evaluation of the factors influencing tire fuel economy (tire construction type, levels of inflation, etc.).

Truck Save

Activities included:

The development of an energy-efficient truck driver training package;

The assessment of the energy-saving potential of truck anti-idling devices.

Alternate Fuels

The aim of this program was to promote the use of available alternatives to petroleum-based fuels, including propane as a transportation fuel for fleet users in the private sector and government.

Other projects underway included a methanol test, involving 10 per cent and 15 per cent blends and the use of straight methanol; hydrogen engine and fuel testing; and, the monitoring of electric vehicle performance.



Testing propane-powered vehicles

Teleconferencing

Completed a demonstration within MTC linking the Downsview headquarters with the four regions and Queen's Park.

Program Co-ordination and Development

Staff activities included:

The assessment of transportation energy activities underway in the Canadian federal and U. S. governments;

A review of the impact of petroleum price increase upon the demand for transportation fuels and services in the U.S.;

Implementation of the Ontario government's TRIM program aimed at a 10 per cent reduction in fuel consumption by the government fleet by 1983.

Structural Research

Preparation continued for the second edition of the Ontario Highway Bridge Design Code.

Two substandard wooden bridges were returned to full service, using a method of transverse post-tensioning. This involved stringing steel cables under tension to reduce movement of structural members and increase overall strength.

Staff continued to develop safer and more economical bridges, concentrating on timber bridges and soil-steel structures. Using new concepts, a prototype post-tensioned timber bridge, incorporating three spans with two integral inclined legs, was designed for the Ministry of Natural Resources. As well, bridge testing program was undertaken to more fully understand the dynamic behaviour of bridges.

designed to provide the private and public sectors with accurate assessments of the energy used or conserved by various devices and measures. Investigations were carried out on cold weather fuel economy measures (engine block heaters, vehicle cab heaters, thermostatically controlled fans and radiator shutters), fuel efficient lubricants, summer and winter tires, and retrofit devices;

- (b) Specific vehicle maintenance measures were designed to identify specific car maintenance measures, low in cost and offering significant fuel savings;

Technology assessment provided MTC and MOE with independent assessments and background papers on a variety of topics.

Technology Transfer Office

Personnel were responsible for the effective transmittal of research findings to identify user groups. To this end, word processing equipment was upgraded to assist in effective report distribution.

A greater emphasis was placed on audio-visual media and special information packages geared to specific audiences.

Staff now operates under a managing editor, with a staff of three editors. Expansion allowed this group to undertake additional projects, including TEMP programs such as Trucksave, Drive Save, Drive Propane, Ridesharing, and Carpool and Vanpool, co-ordinating publications with the Public and Safety Information Branch and Ministry of Energy.

Automotive Energy

This group was created to perform research related to the use of fuel in automotive transportation. Staff includes five scientists/engineers who researched alternate fuels, energy conservation and technology review, as described below:

Alternate Fuels:

(a) Federal and provincial methanol vehicle test program was designed to test the acceptability of methanol fuels in engines of advanced design;

(b) Propane conversion kit testing on the efficiency and performance of six commercially available propane conversion kits;

Energy Conservation:

(a) Fuel economy devices were

Co-ordinator, External Relations

The ministry, through the co-ordinator, continued to broaden its range of contacts with the transportation agencies of other governments and the transportation industry, ensuring establishment of an informed and consistent position in the development and administration of overall transportation policy.

On-going issues connected with resolution of the relative responsibilities of the federal and provincial governments resulted in intensified activity in the area of federal/provincial relations. Several pieces of new federal legislation were examined to determine their impact on provincial transportation policies.

A forum of representatives from MTC and the Transport Canada staff was established, convening on a regular basis to discuss matters of mutual concern.

Policy Planning Branch

The former urban and regional transportation planning office and economics policy office were completely reorganized and a number of their functions transferred to other organizational units in the Ministry.

Some former activities — such as multi-modal transportation planning, economic analysis of transportation issues, monitoring urban and regional development trends, co-ordination of transportation planning data collection, travel demand forecasting, etc — were consolidated in this branch.

In addition, staff was given a mandate to undertake a number of activities completely new to the Ministry, including:

- Develop long range transportation perspectives on urban and inter-city movement of goods and people to facilitate policy analysis throughout MTC;

- Develop corporate policy positions/strategies and recommend decision options in response to broad key strategic issues identified by senior management;

- Provide advice to senior management on corporate planning decisions involving program trade-offs;

- Assess and advise senior management on the consistency of corporate policy positions across modes/programs while within ministry and government objectives;

- Develop and co-ordinate the implementation of a policy and program evaluation "process";

- Evaluate the efficiency and effectiveness of the ministry's policies and programs;

Undertake socio-behavioural, socio-political, socio-environmental and socio-economic research studies in support of and as an integral component of policy analysis activities of broad transportation issues.

To carry out these responsibilities, branch staff was organized functionally into four offices reporting to the director:

- Policy analysis and evaluation;

- Demand analysis and forecasts;

- Policy development;

- Social and policy research.

Policy Analysis and Evaluation Office

Staff will be responsible for the development and implementation of a program and policy evaluation process in the ministry. In fulfilling this responsibility, personnel will play a number of roles:

- Evaluate the adequacy and consistency of the MTC's transportation policies;

- Co-ordinate the development and implementation of the program assessment process;

- Develop overall evaluation criteria and methodology;

- Assist program managers with the development of appropriate program objectives, program performance indicators and methodology;

Assess the achievement of MTC goals and objectives;

Evaluate the adequacy and consistency of the ministry's strategic planning guidelines.

Social and Policy Research Office

Established in March of 1981, staff will undertake research on the social aspects of ministry program and policy planning activities. Main office objectives will include, identify and evaluate the effects and relationships between transportation services on the one hand, and people and communities on the other. Staff will consist of a multi-disciplinary team primarily from the social sciences of psychology, sociology, economics, and political science.

Demand Analysis and Forecasts Office

Staff provided services for the transportation planning and program delivery units, including:

- Monitoring the changes in land use, development patterns, and demographic characteristics of the province, and identifying the causes of these changes and their transportation impact;

- Co-ordinating the data collection efforts of all levels of government related to transportation planning and assisting the municipalities to develop a time-series data base;

- Providing demand analysis and forecasts to highway and transit programs;
- Developing capability of multi-modal intercity demand analysis and forecasting;

- Providing technical assistance to municipalities for their transportation planning activities;

- Conducting surveys for monitoring travel behaviour and truck movement.

Policy Development Office

Personnel provided a concentration of transportation planning and economics expertise in developing corporate policy related to government and ministry objectives, multi-modal transportation issues and anticipated changes in the external environment.

Roles included:

- Develop broad strategies and provide input to ministry strategic plans;

- Develop and recommend corporate policy positions in response to identified prospects and strategic issues;

- Develop long-range perspectives on

urban and intercity transportation of people and goods;

Administer all aspects municipal long range transportation systems planning activities, funded under section 20 of The Public Transportation and Highway Improvement Act.

Studies in five areas centered on:

- Urban passenger transportation;

- Intercity passenger transportation;

- Goods transportation;

- Corporate issues;

- Administration of financial assistance for municipal long range transportation.

Provincial Highways



Regional and District Operations

Responsibility for field operations of various Ministry programs has been decentralized to five regional and 18 district offices within the regions.

Regional offices are located in Toronto, London, Kingston, North Bay and Thunder Bay.

Northern Region

Construction

Major construction projects included continuation of four-laning in the Huntsville and North Bay areas on Highway 11. Construction was completed on the four-laning from Lively to Whitefish, Highway 17, in the Sudbury area.

Construction was also completed on Highways 11, 522, 118, 69, 519, 66, 65, 17 and 64, as well as hot mix paving on Highways 117, 69, 11, 17 and 144.

Also completed was the interchange at the Junction of 11 and 117, Huntsville area, plus the structure for a grade separation Highway 17 at Coniston.

Maintenance

Summer work was carried out some 3500 miles (5635 km) of King's secondary and tertiary highways. Two ferries were operated — at Moosonee and Gardiner. In addition to routine maintenance operations, projects for gravelling, priming, surface treating, mulching and asphalt patching were completed.

Winter maintenance was carried out on most of this mileage, and privatization in the repair area of the garage operation was continued.

Municipal

Staff administered various road assistance programs to 132 organized municipalities (one county, two regions, three cities, 35 towns, seven villages, 81 townships, 3 improvement districts), 17 Indian Reserves, 110 local roads boards and 12 statute labour boards, including subsidy, development roads and connecting links in organized areas and special and specific allotments in unincorporated areas.

Engineering and Right-of-Way

This office completed 26 sets of contract plans and documents relating to property acquisition and construction, representing a program value of \$50,916,000. Seventy-five per cent was done in-house and 25 per cent by consultants.

Staff also continued pre-contract engineering work to identify and address the five-year regional King's and secondary highway needs.

Drivers and Vehicles

The staff of 20 driver examiners conducted 43,285 pre-examinations and 24,798 road tests at 28 testing facilities.

A total of 5,240 heavy commercial motor vehicle inspections were done at truck inspection stations and roadside inspection sites by a staff of 12 vehicle inspectors. A total of 2,502 cars and light trucks were inspected at portable inspection lanes throughout the region with a total of 638 vehicles removed from service for safety-related defects.

Altogether, 85,758 commercial motor vehicles and buses were inspected by the 16 inspectors at five permanent inspection and four audit stations plus those with eight mobile patrols. As a result, 5,909 reports of suspect violations were processed.

Interviews were conducted by one counsellor with 950 drivers who had reached the nine-demerit-point level under the demerit point system. All were located in the northern region.

North-western Region

Construction

Three major projects were completed on Highway 17, involving the use of recycled asphalt pavement, one of which was the four-laning of a 4.6 km section of the Thunder Bay Expressway. Two reconstruction projects were also completed on Highway 11 between Atikokan and Highway 17, and resurfacing projects on both Highway 72 and Highway 105. Manitou Road (now secondary Highway 502) was finished and opened to traffic. Two access roads — projects on Bending Lake Road and Marchington Lake Road, were completed.

Maintenance

In addition to routine summer and winter maintenance, capital maintenance projects, including bridge and culvert repairs, prime and surface treatment projects, maintenance crushed gravel contracts, and construction of a new five-bay patrol garage, were completed.

Municipal

During the year, 70 municipalities and 10 Indian reserves received regular subsidies amounting to \$14,920,200. Office staff undertook 11 connecting link projects at a cost of \$1,284,000 and four development road projects totalling \$362,000. Some \$2,375,520 was provided to 110 local roads boards, 11 statute labour boards, 26 Indian reserves (five of them in the remote north) and other informally-organized groups in-



Multi-span segmental bridge on Highway 406

volved with public roads outside MTC's jurisdiction.

Engineering and Right-of-Way

Personnel completed 25 sets of contract plans and documents (three by consultants), primarily associated with rehabilitation of the existing highway system. Support services for various district capital day labour and unorganized municipal road programs were also provided.

The ongoing preliminary design of such major facilities as the Kenora By-Pass continued as well as the activities concerning engineering and legal surveys, geotechnical and structural investigations, property acquisition and contract-plan preparation in support of the five-year construction program.

Drivers and Vehicles

Driver and vehicles staff conducted 26,787 pre-examination tests and 15,127 road tests, 1,883 demerit-point interviews and 17 medical hearings.

Staff handled 4,041 inspections of commercial motor vehicles, resulting in 122 charges. A total of 1,060 buses and 2,362 motor vehicles were inspected at the portable lanes—1,934 were found defective. The highway carrier personnel inspected 66,300 commercial vehicles, resulting in 3,984 charges; and the regional motor vehicle licence issuing staff licensed 64,840 vehicles.

Remote Airport Program

While 15 airports were maintained, construction continued at Sachigo Lake, Deer Lake and Kasabonika. Administration and control over five reserve road cost-sharing projects took place.

for driver's licence applicants. Nine driver improvement counsellors conducted 22,424 demerit point interviews, 167 hearings and 128 accident repeaters.

Vehicle Inspection

Staff checked 24,523 commercial motor vehicles both at roadside and truck terminals. Of these, 4,243 vehicles were removed from service or tagged unfit. A total of 41,675 cars and light trucks were inspected at either permanent or portable lanes and inspectors found 3,937 vehicles defective. Approximately 3,790 school purposes vehicles and 1,530 commercial buses were also inspected.

Highway Carrier

Staff inspected 1,801,252 commercial vehicles which resulted in 15,210 court convictions.

Construction Office

The Construction Office of the Central Region work on Highway 403 from Toronto to Oakville continued with the completion of a 3.0 km section and the commencement of a further 12 km section as well as the 4.5 km section under construction at the intersection of the QEW.

New interchanges were constructed at Highway 401 and Neilson Rd. and the QEW and Appleby Line, plus existing interchanges at the QEW and Cawthra Rd. and the QEW and Trafalgar Rd. were completely reconstructed.

Work continued on the widening of Highway 401 with a 10 km section under construction from Oshawa to Bowmanville. Construction also continued on the

extension of Highways 404 and 400 south of Highway 401.

A contract was awarded at St. Catharines for the construction of a twin multi-span segmental bridge carrying Highway 406 over Twelve Mile Creek. This is the first segmental structure to be constructed by MTC and the first segmental bridge built in Ontario with a horizontal alignment such that each of the 246 segments are a different dimension.

Engineering and Right-Of-Way

A total of 56 projects were prepared for contract advertising primarily associated with freeway designs in the Toronto-Hamilton area. Design of projects on Highway 403 between Oakville and Mississauga were completed.

In addition, planning of Highway 427, Highway 400 and Highway 407 across the top of Metro Toronto was accelerated.

The planning and detailed design of numerous projects on deficient sections of regional highway was also carried out.

Regional Municipal Office

Staff is responsible for managing the municipal road programs, including overall budget control for subsidy, King's Highway connecting link and development road programs in the region.

During the year, 115 municipalities and six Indian Reserves received regular subsidies under the Public Transportation and Highway Improvement Act. In addition 16 municipalities received subsidies under the Traffic Signal Program, as follows:



Driver Examination and Driver Control

Staff conducted 299,683 pre-test examinations and 216,100 road tests

Roads and Bridge Sections	Road Kilometres	Approved Expenditure	Subsidy Paid
1. Metro Toronto	697.1	\$ 37,007,618	\$ 18,500,000
2. Regions	3,567.0	59,688,064	32,697,255
3. Counties	1,476.4	10,751,659	7,606,881
4. Townships and Indian Reserves	8,953.3	21,706,820	12,124,828
5. Urban Municipalities	15,235.7	185,130,687	88,152,592
	29,929.5	\$314,284,848	\$159,081,556
Traffic Signals		\$ 2,484,000	\$ 1,887,703



Bridge deck paving on E.C. Row Expressway

In 1980, the office administered a connecting link program involving 36 projects with a provincial contribution of \$3,800,000. This expenditure includes \$306,000 for maintenance in towns and villages. The development road program consisted of two projects involving an expenditure of \$116,000.

Maintenance

Approximately 4,875 km of two-lane highway were maintained. In addition there were two patching contracts requiring 39,225 tonnes of hot-mix material.

During the winter, 219,500 tonnes of sand and 89,600 tonnes of salt were used on highways in the region, while 14 new traffic signals were installed.

On Toronto district freeways, emergency patrols continued to operate, driving approximately 900,000 km while providing assistance to 26,000 motorists and dispensing 247,000 litres of free gasoline to stranded drivers.

South-western Region

Construction

Three contracts were awarded for construction of a further 6.4 km of the E.C. Row Expressway. They also provided for the erection of five structures, including two pedestrian overpasses and noise barriers. In December 1980 the Minister officially opened to traffic, the section of the expressway between the Windsor east limits and Lauzon Parkway.

A contract was awarded for construction of 9.6 km of new Highway 3, connecting Leamington with the present Essex By-Pass. In conjunction with this

contract, work was also carried out for the rehabilitation of existing Highway 3 between Leamington and Essex.

As part of the continuing program for the rehabilitation of Highway 401, contracts for an additional 31.4 km of resurfacing were awarded and completed. With the award of a 5.5 km grading and seven structures, construction of the whole length of Highway 402 from Samia to London is now underway. Also awarded was a contract for paving of Highway 402, from Highway 401 westerly for 6.2 km.

Work continued on the widening of Highway 400 between Barrie and Waubesaushene with the award of a contract for 9.9 km of grading and paving and four structures. Also on Highway 400 at Highway 89 and at Innisfil Beach Road interchanges, two commuter parking lots were constructed. Other contracts awarded provided for work to be carried out on Highways 11, 26, 89, 21, 10, 81, 7, 126 and 18. Five landscaping contracts were also awarded for Highways E.C.R., 400 and 3N St. Thomas Expressway.

Maintenance

In addition to the regular summer and winter maintenance operations, traffic signals were provided or updated at six locations and intersection improvements undertaken at five locations. Major bridge deck joint repairs were carried out on seven structures. Southwestern Region also increased its slope flattening and preventative maintenance programs. The New Sarum patrol yard in London district received a new 116' diameter sand dome and a six-bay patrol garage.

Municipal

A total of \$106,103,343.43 in subsidies was paid to counties, regions, urban municipalites, townships and Indian reserves in the region. Fifty-six connecting link projects received approximately \$6,056,000.00 and eight development road projects received approximately \$1,287,000.00 in assistance.

Drivers and Vehicles

This office is divided into three districts located at London, Windsor and Kitchener. Under the direction of the regional office, 177 employees are responsible for driver examination, licence issuing, driver improvement counselling, vehicle inspection and enforcement of The Public Commercial Vehicles Act, The Public Vehicles Act, The Highway Traffic Act and The Motor Vehicle Transport Act, including investigation and prosecution of illegal trucking operations in the Region.

Seventy-one employees located at 21 driver examination centres and operating 24 travel points conducted 139,133 pre-examinations and 94,186 road tests for driver's licence applicants. In addition, this unit processed and issued 28,540 requests for replacement driver's licences.

Three licence issuing offices located at London, Chatham and Stratford are maintained by six employees who dealt with 151,279 transactions which produced \$5,883,684.00 in revenue.

Four review officers responsible for driver improvement counselling conducted 10,874 demerit point interviews, 84 accident repeater interviews and 84 hearings during the fiscal year.

The 29 vehicle inspectors conducted 5,272 audits of licensed motor vehicle inspection stations; inspected 3,299 school buses; 778 highway coaches, church and transit buses, and wheelchair vehicles; 8,139 commercial motor vehicles and operated portable and mini-inspection lanes at numerous locations. During these operations, 6,460 vehicles were inspected and plates removed from or surrendered for 1,659 vehicles. Complaints and audits resulted in 311 charges being laid under various sections of The Highway Traffic Act.

The 54 employees attached to the highway carrier inspection staff inspected 582,613 commercial motor vehicles at permanent truck inspection stations, portable scale sites and area patrols. These inspections resulted in 12,977 reports being written of which 9,408 resulted in court convictions.



Snow plowing is major winter maintenance program

Eastern Region

Construction

A 3.3 mile section of Highway 17N bypassing Arnprior, including a structure over the Madawaska River, was opened to traffic in the fall of 1980. Grading on the 8.4 mile section of Highway 17N bypassing Pembroke started last year has been completed and another contract, 6.1 miles long, was awarded late in 1980 that will complete the grading on the bypass.

Two resurfacing contracts on Highway 401 in the vicinity of Brockville and Cornwall were completed in the fall of 1980, and construction was started on the \$14,300,000.00 Norris Whitney Bridge destined to carry Highway 14 across the Bay of Quinte south of Belleville.

Construction or reconstruction was also carried out on Highways 14, 15, 17, 29, 33, 34, 62, 138, 500, 503, 506, and 511.

Engineering and Right-of-Way

Twenty-three capital construction projects were prepared for award in 1980 and an additional 36 miscellaneous projects were also processed.

Preliminary design and operational studies were carried out on Highway 417

(Queensway) between Richmond Rd. and Montreal Rd.; Highway 7 at Bells Corners; Highway 17, Jeanne D'Arc Blvd. Interchange; Highway 416 from Rideau River to Manotick; and the Wolfe Island Ferry Operation from Kingston to Wolfe Island.

Drivers and Vehicles

Approximately 93,795 pre-examinations and 58,914 road tests were conducted by staff for driver's licence applicants. Driver improvement counsellors interviewed 4,459 drivers who had attained nine demerit points.

Inspections of 5,142 vehicles were undertaken at roadside or truck terminals. And 4,806 vehicles were inspected at portable inspection lanes and 658 had serious defects. There were 4,932 school bus inspections carried out, while highway carrier inspectors checked 171,882 vehicles.

Maintenance

Major winter activities in this region

consisted of 1,109,696 kilometers of snow plowing; and 88,738 tonnes of salt and 100,766 tonnes of sand, were spread.

Summer maintenance activities covered 3,556 kilometers of centre-line and 3,436 kilometers of edgeline painting. Some 18,113 trees and shrubs were planted and 3,113 hectares of brush and weeds sprayed. Six traffic sets and 35 luminaires were erected.

Districts issued 587 building permits, 1,095 field advertising signs; 1,014 guide signs were also processed.

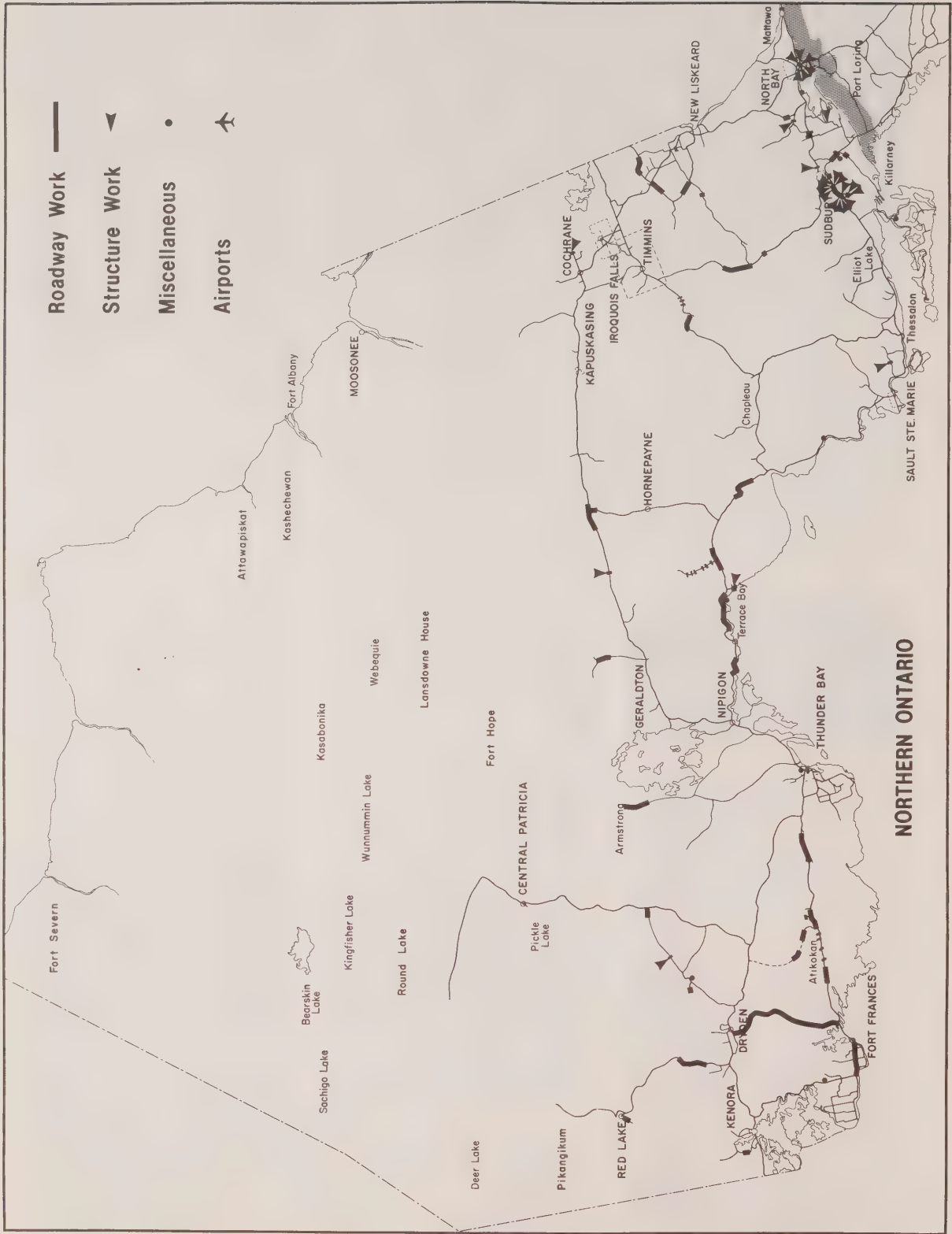
Municipal

The Region deals with municipalities and agencies ranging from regional municipalities to Indian reserves. Connecting Links received \$3,195,850 in provincial assistance and 32 development roads received \$3,873,717.

Provincial contributions were also made for the following municipally operated services:

Airport Program — \$45,529; Ferries — \$440,663; Traffic Signals — \$379,000.

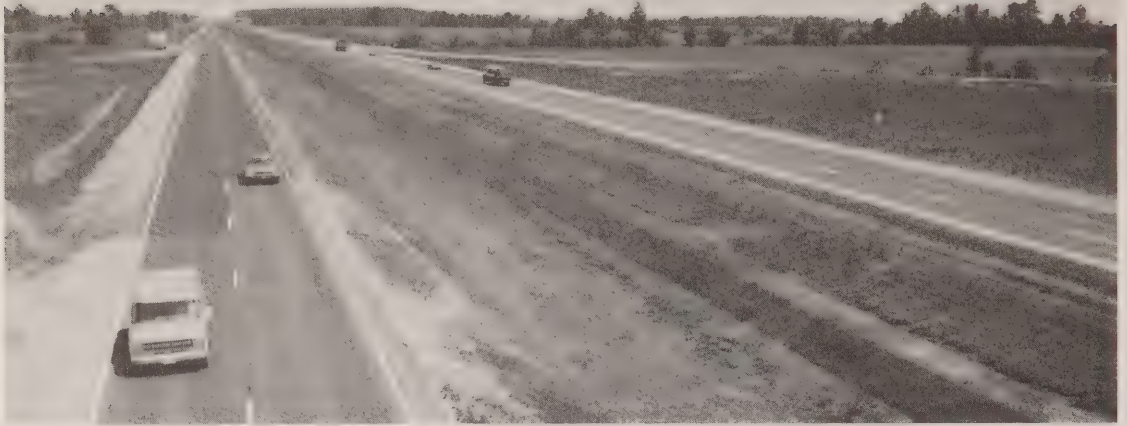
	No.	Roads (km)	Subsidy Paid
Regions	1		15,147,180
Counties	9		18,084,561
Townships	140		24,124,659
Urban	62		16,761,966
Municipalities			
Indian Reserves	3		93,605
	215		74,211,971





PROGRAM MAP - SOUTHERN ONTARIO

Highway Engineering Division



Engineering Materials Office

Pavement and Foundation Design Section

Section staff took a leading role in task forces/committees on recycling of asphalt pavements, sulphur asphalt, planned quantity payment, over-weight-oversize permits and implementation of the Ontario Bridge Code related to foundations.

It was active in a joint project with Carl Zeiss-Canada to study the feasibility of the semi-automation of the photo-interpretation method for pavement friction level determination, which could lead to a substantial advancement in the technology in this field.

A total of 85 structures, foundations and earth/rock work projects were carried out. Of these, 10 were for municipal jurisdiction. Twenty-five were handled by geotechnical consultants under the direction of foundation unit staff. Contract reports for 63 projects were prepared.

A special project was initiated in collaboration with Ontario Hydro to predict the capacity of piles by using a self-boring pressuremeter.

At three locations, instrumentation projects were in progress to monitor the compressibility characteristics of high-fill embankments constructed on competent subsoil. In addition, detailed instrumentation was in progress to monitor the settlement for footings founded on compacted granular material.

Bituminous Section

Specialist service to the districts and regions was provided on all aspects of bituminous materials, construction and maintenance. Program delivery testing

was carried out for central region and, on request, for other jurisdictions.

Road-roughness readings, utilizing the Mays Meter, were obtained on 8,443-lane kilometers of highway for use by construction, pre-contract engineering, programming and research.

A major study on recycled hot-mix was initiated. Interim reports on construction and performance will be issued annually.

Special projects were undertaken to evaluate materials suitable for crack-sealing bituminous pavements, to evaluate the durability of open-graded binder courses with low asphalt cement contents, and develop surface treatments suitable for high-traffic highways.

Section personnel co-operated with industry, installing field trials with three emulsion primers tested as a replacement for MTC primer. The emulsion primer approved to date contains 40 per cent less solvent than MTC primer. The goal is a solventless solution.

Chemical Section

Section staff continued to provide specialist and expertise service related to ministry activities involving materials and products of a chemical or metallurgical nature.

A report was published on the alleged reduced durability and excessive wear of tungsten-carbide tipped snow-plow blades. As a result, blade specifications were revised and a stricter quality assurance initiated. Technical support was provided in the (as yet uncompleted) spin-off study of extra-hardened carbon-steel snow-plow blades for possible selective use.

Personnel also selected — and were responsible for — the quality assurance of the coating systems used on the 1980 skyway bridge-painting contracts and expanded the list of approved potential

paint suppliers through an additional evaluation program.

Technical reports were published on durability studies of vinyl-coating systems for structural maintenance painting and various types of pre-coated noise barrier panels.

Concrete Section

Through participation in the activities of two task forces and establishment of policy, section staff continued their major role in development of technology and procedures for the maintenance and rehabilitation of structures, particularly bridge decks. Good progress was made as a result of the production of audio-visual training aids for various rehabilitation systems, a bridge deck inspection manual, guidelines for the use of non-corrosive epoxy coated bars in structures and the determination of the performance of various expansion joint systems.

Transfer of staff within the division has resulted in an experienced technician assigned the responsibility of assisting design and construction staff in structure maintenance work.

A demonstration project to evaluate slip-form construction techniques on bridge Jersey barrier walls successful and is expected to result in significant future cost savings.

Field trials to evaluate the properties of concrete containing low energy ground blast furnace slag as a partial replacement for portland cement were completed. Its use is expected to reduce the costs of concrete construction.

Progress on the development of performance-type specifications for concrete construction — so that more responsibility for the quality of work is placed on the contractor — will result in some specification simulation on contracts in 1981.

New initiatives begun included work to determine the effect of various brands of portland cement on concrete strength,



the level of in-place concrete strength in bridge decks, and the improved durability of concrete made with some aggregates.

Soils and Aggregates Section

With the gradual movement away from the traditional "material and method" type of specification, a survey was carried out among commercial aggregate producers to determine the feasibility of introducing producer process control. It revealed this approach was practical and, in many cases, welcome. Implementation was recommended.

A report titled "Engineering Geotextiles" was published. Unique and in demand, it contains detailed information on properties, use criteria, tests and lists of acceptable products.

Because high-quality skid resistant aggregates used in pavement surface courses originate in one area only, thus requiring the expensive hauling, preliminary work was carried out to establish the fact there are local deposits of excellent material which can be utilized — thus reducing costs.

A review was undertaken of all granular types used on contracts with a view of eliminating as many as possible. It revealed that due to similarities and obsolescence, the 50 types currently in use could be reduced to 33. Major revisions to the related specifications are now underway.

In order to meet current demands, new testing equipment and procedures have been introduced, all related to the measurement of skid resistant properties of coarse aggregates and frost heaving of soils.

Based on a detailed financial assessment, a decision was reached that the 21 old-model nuclear gauges became inefficient because of high repair costs. Replacement was advised — which has been done and the cost distributed among the regions on a prorated usage basis.

Highway Operations Branch

During the year, the former Design and Construction and Maintenance Branches were combined into one Highway Operations Branch. The new branch, composed of the highway design, contract management, maintenance operations, environmental, equipment engineering and the traffic engineering offices, now reports directly to the executive director, Highway Engineering Division.

Highway Design Office

This office is responsible for five major areas of highway design policy: corridor control; preliminary design; detail design; hydrology; and electrical.

The corridor control section reviewed a large number of plans of subdivisions, official plans and amendments and zoning by-laws as well as many highway assumptions, designations and transfers.

The preliminary design section completed major revisions and metric conversion of the alignment chapter of the Ontario geometric design standards. The commercial site access policy and standards manual were also being revised.

In the detail design area, the final report on the contract package preparation and content study has been completed. Development of draft guidelines for design for plan quantity payment has been issued. Highway noise barrier materials and products were reviewed.

Progress has continued on the MTC drainage manual with two chapters issued and two more nearing completion. The hydrology section has actively assisted with the preparation of the second edition of the Ontario Bridge Code.

The electrical design and development section has made significant progress on

traffic signal contract specifications. Electrical design drawings and documents were prepared for 137 electrical installations. Approximately 70 per cent were completed by engineering consultants.

Contract Management Office

Staff is responsible for the preparation of final documents for the tendering of ministry contracts. It also provides the official interpretation and clarification to contractors during bidding stage. During the past year, 232 contract awards were processed.

It also has responsibility for development of new policies and procedures related to the contract management, manpower management, and staff training required for MTC construction activities. It also provides technical recommendations on those matters above regional authority. The major thrust for these policy matters includes:

- completion of a policy and method of introducing payment to contractors from plan quantities;
- changes to policies and procedures with respect to the quality assurance requirements during construction.

Maintenance Operations Office

A video cassette training program was developed to complement the pavement maintenance guidelines during the year. In addition MTC utilized a total of 44



Domes store salt and sand for winter maintenance

privately-owned and operated snowplows on an evaluation basis. Such service was very good, and the number of contract snowplows will be increased for the coming winter.

The integration of the maintenance management system with the operations management system continues. Staff study groups completed and presented final reports outlining input data requirements and necessary system-planning mechanisms. The preparation of output report formats and reporting documents also continues.

A total of 26,895 equivalent two-lane kilometres were snowplowed during the winter months while 433,696 tonnes of salt and 1,032,288 tonnes of sand were used on all Ontario highways.

Special Maintenance Services

Evaluation of various types of new pavement-marking materials, traffic-control products and devices continued with the subsequent development of standards and policies.

Further applications of various permanent types of pavement marking tapes were made and subjected to regular monitoring. Performance of some of these materials were encouraging and further tests are planned so a policy for their use can be formulated.

One additional hot-paint striper was built and added to our zone-striper fleet. There were 19 stripers, nine hot-paint and 10 standard-paint machines in operation. Three conversions of the zone-striper fleet to a hot-paint operation, one by the private section, were made, plus the completion of an additional hot-striper, all of which will be in operation in 1981.

The test installations of four different types of raised-pavement markers have

been completed and the subsequent monitoring of their performance indicated three were highly susceptible to damage by snowplows and other vehicular traffic, therefore are not acceptable for ministry use. Guidelines were established for determining locations where the remaining marker may be used.

An extensive questionnaire was circulated to all regions and districts requesting information about their zone-painting operations, paint performance etc. A draft directive, on zone painting-quality assurance, based on the replies was subsequently issued. Following a review of any further comments from the regions/districts, a final directive will be circulated.

Directive C-71 was issued, outlining recommendations for effecting economies in our zone-stripping operations where permanent and temporary pavement markings are required.

Following a lengthy, detailed review of the dome building program, directive C-99 was issued, outlining the policy for construction of a newly-designed sand and salt storage dome. Recommendations for a more economical safety rope installation on sand domes were issued as directive C-92.

As a result of a study of the accumulation of exhaust fumes and the potential danger to those operators involved in the stockpiling and removal of winter sand and salt from all domes, directive C-87 was issued which outlined procedures for the operation of gas and diesel-powered equipment.

A field evaluation of a new fluorescent/reflective sign sheeting was arranged. A number of construction signs were manufactured with the red/orange material. Because of its special fabrication, the sheeting has the unique property of being highly visible both day and night—a distinct advantage over standard con-

struction signs made from orange reflective sheeting. The performance of these new signs will be subjected to regular field inspections.

Landscape Planning and Operations Section

Office staff is responsible for development and co-ordination of landscape-related functions relative to MTC roadside management programs. This past year, the following major activities were undertaken by this group:

Directive C-7 was prepared in co-operation with the occupational health and safety office for use by all ministry staff involved in handling chemical pesticides. The purpose was to detail policy with respect to the safe handling of pesticide chemicals by spray applicators and the correct techniques of proper chemical storage;

A draft copy of a manual on the establishment of vegetation for erosion control on highway rights of way was prepared. This was submitted to the regions and districts for initial use and comment. The manual will be prepared in its final form following receipt of regional and district comments;

Several seminars were conducted during the year to educate MTC staff in changing technology and ministry policies relating to the management of roadside vegetation;

A co-operative study was carried out between the MTC and the Ministry of Labour to determine the exposure level of ministry chemical spray applicators to pesticide sprays. The results of the study as confirmed by the Ministry of Labour, indicated concentration of contaminants in the air breathed by the spray operators could not be anticipated to present a health hazard.



Lighting is an important part of highway plant

On behalf of the regions, a service was provided to prepare 29 landscape plans for completion in the spring of 1981. In addition, landscape planners contributed information on vegetation removals, selective clearing, natural regeneration, landscape concepts and aesthetics on a total of 85 regional projects;

A trial project was initiated using a consultant inspection service on a landscape contract; and several landscape design projects were sent out for consultants to provide the design package under direction of landscape planning.

Electrical Maintenance Section

Electrical maintenance section staff carried out the following activities during the fiscal year April 1st, 1980, to March 31st, 1981:

Directive B-97 was prepared and issued to establish a ministry policy for the re-lamping of highway lighting to provide uniform practices for re-lamping and reduced maintenance costs;

A special optical device to operate, remotely, warning lights at the ferry crossing on the Abitibi River in Cochrane district was recommended and expertise provided to district staff.

The purpose of the lights was to alert other marine traffic of the cable ferry crossings, that the cables presented an obstruction to movement on the river;

A study was conducted on the feasibility of using electronic-switching systems to reduce the "on" time of the highway illumination. Further investigation and field testing will be conducted;

A maintenance record-book system was prepared to record traffic-signal

data and maintenance operations of ministry-maintained signals;

A traffic signal operations newsletter publication was initiated with the first issued in October of 1980 with subsequent issues published bi-monthly. It provided information on operation and maintenance of microprocessor traffic signals while advising recipients of the latest data provided by suppliers for material used by the ministry;

Directive C-95 was prepared and issued stating MTC policy for the use of emergency vehicle pre-emption equipment by municipalities on ministry operated traffic signals. It permitted an emergency vehicle such as fire truck or ambulance to proceed through a signalized intersection on a "green" signal;

Recommendations were adopted as MTC policy to standardize the use of 310-watt high-pressure sodium lamps to replace 700-watt mercury vapour lamps; and 200-watt high-pressure sodium lamps to replace 400-watt mercury-vapour lamps, resulting in significant electrical energy savings;

Training for district staff was co-ordinated with the Electrical Utilities Safety Association of Ontario for a variety of courses related to maintenance operations. A total of 40 staff members attended;

A traffic signal vehicle detector seminar was held at head office, Downsview, with 46 representatives from regions and districts attending;

Electrical expertise was provided in instructional sessions to staff in 10 districts;

A traffic-signal maintenance seminar was attended by the electrical section head, Aug. 4th to 7th, 1980, in Philadelphia, Pennsylvania. The seminar was conducted as an extension service of the Texas A & M University system.

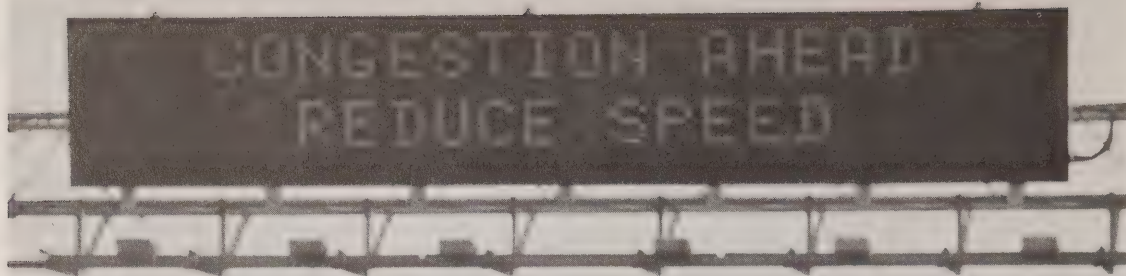


Environmental Office

Staff was responsible for development and co-ordination of natural and cultural environmental policy, guidelines and procedures relative to all ministry programs. And liaison was maintained with all MTC offices and agencies to fulfill this mandate.

During 1980-81, office personnel were involved in providing interpretation and clarification of environmental assessment requirements to the Toronto Area Transit Operating Authority, the Urban Transportation Development Corporation, the Ministry of Northern Affairs, MTC's Communications Division, air office, the municipal roads office and regional planning and design sections—as the Environmental Assessment Act, 1975, became applicable to all MTC and related agencies projects. In the past year, the environmental assessment class document for constructing new airports, runways and runway extensions was accepted and approved by the Minister of the Environment.

As part of the on-going environmental technical development work, a guideline relative to "sensitivity analyses techniques" (Streams) was prepared, and training presentations on environmental sensitivity were provided to operations staff. In addition, staff assisted the Municipal Engineers' Association in adapting MTC's provincial roads program environmental assessment class documents for municipal use.



Changeable message sign on QEW

Traffic Engineering Office

Analysis section staff participated in traffic operations studies for Hamilton Mountain, Belleville, Brantford, Grand Bend, Tecumseh, Waterloo, Richmond Hill, Stoney Creek, Leamington, Chatham, Perth, Sault Ste. Marie and Metro Toronto. The Toronto study was a large scale examination of traffic in the city core and their effects on major future developments on road-use alternatives and transit impacts.

An accident analysis project resulted in approval for „prohibition of non-emergency parking on freeways and the commitment to build roadside rest areas for weary drivers.

Developmental work in the area of microprocessor-based permanent counting stations with telemetry proceeded to the point where field units will be installed this year.

Traffic signing personnel developed and introduced 10 new signs standards and two new policies, including the contract identification sign (TC-71), the chevron marker, the King's Highway notice signs G-16, G-16A, G-17, G-17A; the "Ontario Welcomes You" sign, and the combined maximum speed sign and "km/h" tab. There were four ministry directives issued and two new diagrammatic signs designed for use on the QEW and Highway 401.

The new traffic control manual for roadway work operations was completed with complete distribution scheduled by the end of May, 1981.

A paper on Ontario's signs for the tourist industry was presented at the RTAC conference in Toronto, and freeway sign standards and typical interchange sign layouts were prepared for RTAC for their Project #146, "Freeway Guide Signing."

A new signing package was completed for Highway 60 through Algonquin Provincial Park that included signs at 46 sites

for various attractions and services located in the park. Also, a new signing package was completed for "Wye Valley Heritage" which includes a fourth attraction, the "Historical Naval and Military Establishments" and changes in the main logo layout. The complex will now be signed as "Huronian Heritage."

Traffic information systems staff continued their program of special traffic-data collection, primarily using summer students. In addition to the normal origin and destination surveys, surveys were conducted to collect data for truck reciprocity negotiations.

The section also participated in development of electronic warning devices. Assigned staff developed, as a constituent part of a multi-disciplinary team, the accident-information system to the point where user requested tabulations and analysis could be performed, as well as producing standard filtered computerized outputs. The facility of on-line interrogation processes was under development.

Traffic control devices staff played the leading role in reviewing the signal chapter of the Ontario manual of traffic control devices. And the recently formed signal chapter review committee completed their work. The new signal chapter was published this spring.

Approximately 30 model 170 microprocessor-based traffic controllers were operating in the province as of April 1, 1981. An additional 50 units are expected to be installed this summer. Ontario suppliers are scheduled to deliver over 200 additional controllers and 100 cabinets before the end of the year.

The first time-based co-ordination program within a standard 170 cabinet was implemented at four intersections at Elliot Lake. It's designed to co-ordinate the operation of closely-spaced signals along an arterial while providing a green-

band for traffic, thus minimizing stops, delays and fuel consumption. Co-ordination was achieved using highly-accurate digital clocks provided in the 170, eliminating the need for costly interconnect cable.

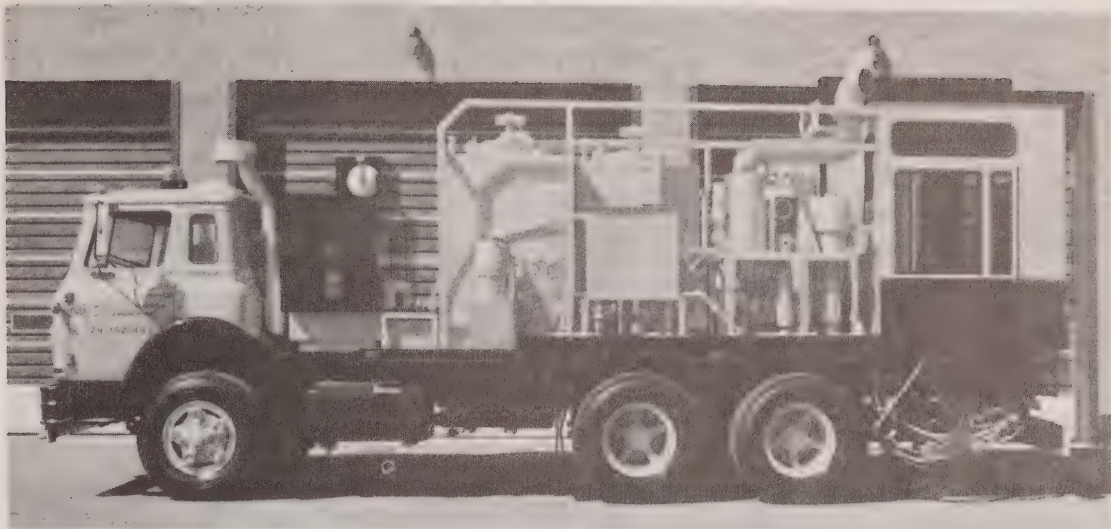
MTC's Municipal Traffic Control Systems (MTCS) Project involving the installation of computerized traffic control systems in Brantford and the Regional Municipalities of Durham and Waterloo proceeded according to schedule. The systems, expected to significantly improve traffic operations by reducing stops, delays, and energy consumption, will be operational by February, 1982.

Several other municipalities, including London, Mississauga, Windsor, Thunder Bay and Burlington are conducting or planning to conduct feasibility studies to determine the applicability of MTCS systems for their municipalities. This ministry is providing technical assistance and making available the standard MTCS specification to those interested.

Traffic control development staff participated in the expansion of the QEW freeway surveillance and control by starting up ramp metering at the Cawthra Rd. and Winston Churchill Blvd. interchanges.

Approval was received to proceed towards the installation of a traffic management system on Highway 401 between Highway 427 and the Don Valley Parkway. Vehicle detectors, TV cameras and changeable message signs will be used to improve the response to traffic stoppages and provide real-time communication with motorists.

In an effort to reduce the number of occurrences of high loads striking overhead bridges, three over-height vehicle detectors were installed in Ottawa, Dundas and Tilbury. Extensive monitoring will take place.



New zone striper

Equipment Engineering Office

This office was responsible for the acquisition of all replacement and additional mobile equipment, valued at approximately \$7,000,000, and the processing of equipment for development of air fields in Ontario.

Fleet management section staff, promoting privatization of equipment maintenance, developed and introduced new simplified procedures and documentation to facilitate transactions with private garages. They also co-operated with the Management Improvement Branch in developing and introducing privatization

evaluation methods in the field.

Promoting petroleum fuel savings, 27 propane-powered vehicles were introduced into the MTC fleet. The percentage of diesel vehicles was increased, and the possibility of using more fuels investigated.

Two new zone strippers were built and introduced into the fleet. Two zone strippers were converted for hot-paint celess application. To improve striping operations, training seminars for operators were conducted. Following completion of tests, operators were certified. Training of mechanics, with emphasis on diesel engines, was continued and training seminars for senior garage supervisory staff conducted, with emphasis on privatization and the efficient, money-conscious, operation of the fleet.

Structural Office

With decentralization of non-complex design responsibilities to the regions, there was a 10 per cent reduction in structural office staff to 90 by year end. Staff completed design and contract documents for 24 bridges in-house, and supervised design of 16 by consultants.

The total of 40 new bridges represented a reduction in numbers of over 40 per cent compared to the previous year. However, the workload in the operating sections remained high with work starting on alternative designs in steel and prestressed concrete for the proposed five-lane Burlington Skyway expansion.

The alternative design concept was continued for major bridges, and bids were received on two such projects. On the Norris Whitney Bridge over the Bay of Quinte, steel was low, whereas for the Highway 403 crossing of the Credit River, prestressed concrete was low.

With the introduction of prestressed segmental concrete construction, the need for a close working relationship between design and construction was recognized, with two design engineers from the structural office working on-site for the regional construction office during the construction of 12-Mile Creek Bridge on Highway 406.

The work of the task force on procedures for structural maintenance and rehabilitation was begun. Increased emphasis on rehabilitation was reflected in the work of the approvals section, where 118 bridge evaluations were processed, an increase of over 60 per cent from 1979-80. Work has started on inventorying structures with possible heritage attributes.

Two municipal structures in this category were renovated, the Sewells Road suspension bridge in Scarborough and the stone arch bridge in St. Marys. In the municipal area, the number of final

Highway Standards Office

As a result of restructuring of the Highway Engineering Division, this office — formerly known as the specifications and standards — was designated an independent office reporting to the executive director of the division.

Staff continued to be responsible for up-to-date standard specifications and drawings with related policies and procedures for the design, construction, maintenance and safety of highways as well as monitoring regional-developed special provisions and special design standards.

Personnel continued to participate with the Municipal Engineers Association in the development of uniform Ontario provincial standard drawings and specifications.

A new policy was introduced providing for greater flexibility in the implementation into contract documents of changes to standard drawings and specifications.

Specifications staff revised general conditions and 21 construction and material specifications while cancelling one construction specification. Conversion of the remaining imperial material specifications will proceed as and when the industry or manufacturers convert to metric.

The production of standard special provisions for contract documents is continuing to ensure standardization wherever possible.

Standard drawings section staff introduced a centralized method of including standard drawings in contract documents of capital construction contracts. A new structural standard drawings manual has been prepared. It, as well as the electrical standard drawings manual, was administered by this section. One hundred and forty standard drawings were developed or updated and 206 modified, as required for specific projects.



MTC keeps Ontario Road Map up-to-date

bridge approvals increased slightly to 221, whereas load restriction by-law approvals on existing bridges were reduced to 254, which is a more normal figure following the peak of 367 last year.

Procedures staff began to computerize the bridge clearance and load restriction manual. The major work in computer program development was on the Ontario modular bridge analysis system (OMBAS).

Virtually all new MTC bridge designs and evaluations are now being carried out to the Ontario Highway Bridge Design Code (1979). Work is under way on the second edition of this code, scheduled for publication in 1982.

Surveys and Plans Office

This office consists of four sections, covering conventional engineering and legal surveys, aerial surveys, cartography and remote sensing. Policy and procedure development for engineering and legal surveys, plan preparation and registration and remote sensing applications were carried out as well as development of plans from aerial surveys and the ministry map series produced for transportation purposes.

Surveys Section

Personnel continued the establishment and evaluation of control survey monuments as follows: 426 horizontal control monuments on the Ontario co-ordinate system evaluated; 380 precise benchmarks added to the vertical control system.

During the year, 963 legal plans were examined and 304.8 km of highway designated as controlled access highway (total length now 6604.0 km). In addition, training continued with 26 candidates in surveying or drafting, and 16 passing qualifying examinations.

Aerial Survey Section

This section delivered 117 photogrammetric engineering plans during the year broken down as follows:

- small scale 1:10,000 (2.5m contours)
 - (a) in-house: 9,510 hectares (16 models)
 - (b) consultants: 0

- medium scale 1:2,000 (2m contours)
 - (a) in-house: 15,843 hectares (235 models)
 - (b) consultants: 0
- large scale 1:500 (0.5m contours)
 - (a) in-house: 2,282 hectares (145 models)
 - (b) consultants: 622 hectares (111 models)
- planimetric 1:500 (no contours)
 - (a) in-house: 2,969 hectares (231 models)
 - (b) consultants: 300 hectares (60 models)
- measured Cross-sections 1:500
 - (a) in-house: 80km (291 models)
 - (b) consultants: 0

To complete the above, 2,615 km of aerial photography was flown, for 42 mapping and 14 non-mapping projects. Twenty-two oblique aerial photography projects were also completed.

Cartography Section

Staff continued preparations for the production of the new Ontario transportation map series at scale 1:250,000 which will replace the existing county/regional series at scale 1"=4 miles. The first three are in production and scheduled for printing in 1982. Thirty-three maps in the white-print county map series were revised as well as the MTC region and district boundary map. The U.S. commercial vehicle reciprocity map, and class "L" route-reg. 699 map were also prepared.

Three map-use survey questionnaires were issued to obtain feedback on ministry maps. In addition, the following requests were satisfied: 75 for cartographic services resulting in 165 base maps; 316 base film duplicates; 24 miscellaneous services; 22 for road information compilation; \$1,482 map base film sales to the public.

Remote Sensing

A re-assessment of the section was completed, resulting in the re-evaluation of all work carried out and an emphasis on the production of policy and procedures. Research projects were reviewed and modified to match available resources. Personnel continued to provide professional services on a request basis for head

office and the regions, mainly relating to claims.

They also provided aerial photographic mosaics and image library services to the ministry and others. And 1,116 m² of mosaics and related products were produced and 1,706 requests for image library services processed. They provided training assistance to MTC staff and other agencies with the 5th Annual Remote Sensing Conference and two one-week seminars on the engineering applications of remote sensing.

Signs and Building Permits

Building permits issued by the 18 districts under the policy direction of head office totalled 2,737 with a value of \$355,078,598.

The number of field advertising permits issued was 7,385 valued at \$92,880; 2,477 guide sign permits were issued, generating \$44,298 in fees.

Other permits issued included 1,417 encroachment permits valued at \$14,141; 1,937 entrance permits and 11,598 new or renewed sign permits.

Estimating Office

Estimating office staff, operating with a complement of 25, prepared the official cost estimates on 300 contracts having a tender award value of \$266,199,230.67. Recommendations for award were made to senior Ministry officials on 296 contracts and non-award on four.

Personnel also produced numerous construction cost comparisons, made recommendations for cost effective design alternatives, and provided preliminary project value estimates for the Ministry's multi-year program.

This office also developed direct energy consumption factors for roadway and bridge construction, as well as co-operating with the private sector and governmental departments, provincial and federal, in construction cost and quantity related matters.

Finally, staff prepared annual reports on unit-bid prices, cost-per-mile of construction, equipment rental rates and minimum truck-haul rates for internal use and outside agencies.

Safety and Regulation



MTC regulates the safe movement of traffic

Regional Operations Division

This division, was responsible for program administration, investigation and prosecutions, occupational health and safety and highway carrier licensing.

Staff provided as required, policy, procedures and training for drivers and vehicle field operations to ensure the uniform application and delivery of the driver examination, vehicle inspection, highway carrier, and MTC occupational health and safety activities. In addition PCV and PV licences were issued to the holders of operating authorities emanating from the Ontario Highway Transportation Board.

Investigations and Prosecutions Office

Investigations and prosecutions staff monitor the compliance of the highway carrier industry with the applicable legislation and regulations.

Over the past four years, a comprehensive, off-highway enforcement system has been developed for the conduct of in-depth investigations, requiring examination of all books, records and documents of carriers. Last year, there was increased activity in the examination of licenced carriers' books, to establish if their operations were in compliance with the terms and conditions of their operating licences. In 1980-81 fiscal year, 656 cases were placed before the courts for contravention of the PCV, PV and MVT (Canada) Acts. Approximately one-third involved purported leasing arrangements.

During the early part of 1980 I&P office staff developed a comprehensive

training program to enable the office to teach all aspects of the knowledge required of an investigator. The ultimate goal of the program is to qualify enough investigators and supervisors to have in place regional I&P offices covering all regions by the fall of 1982.

Communication between the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Quebec and Ontario are now open for the exchange of information relative to investigations of for-hire carriage. Also reciprocal arrangements were undertaken to serve summonses, subpoenas and notices of hearings. Under this arrangement, some 327 summonses have been personally served by reciprocating provinces for and on behalf of Ontario.

In February 1981, a meeting was held with the regional director, Office of Consumer Protection, Interstate Commerce Commission to discuss enforcement problems and other matters of mutual concern. The result was a continuation of his undertaking to serve subpoenas on U.S.-based operators. A total of 128 summonses were served by U.S. officials for violations under the Motor Vehicle Transport Act (Canada).

Program Administration Office

Staff promoted the delivery of uniform drivers and vehicles programs to the public, provided policy directives, operation procedures, technical expertise, and training courses for driver examination,

vehicle inspection and highway carrier field staff.

Program administrators assisted the Transportation Regulation Division in the development of new or amended legislation, and co-ordinated the implementation of drivers and vehicles programs.

Ontario's driver certification program was monitored and audited by driver certification officers working out of this office.

Occupational Health and Safety Office

A number of health and safety programs were developed by office staff for delivery to ministry staff by regional safety offices. To meet the MTC's ongoing need to use explosives, 120 employees were trained and certified in the use of explosives in a program which included both classroom and practical instruction. Also completed was a two-year pilot study consisting of the biological monitoring of staff exposed to lead. A major accomplishment was implementation of a comprehensive joint union/management health and safety committee structure covering all staff in the ministry.

This past year the office received the mandate for program delivery in the head office complex. First aid training, audiometric testing and the recognition, evaluation and control of hazards are some of the activities in which staff have been engaged.

Personnel have also the responsibility to establish a training program for all safety personnel in MTC. A one-week course in industrial ventilation was developed jointly with Humber College. All safety personnel attended.

Highway Carrier Licensing Section

This section, recently transferred to the division, was responsible for: (i) the monitoring of Ontario Highway Transport Board certificates for compliance with the PCV and PV Acts and Motor Vehicle Transport Act (Canada); (ii) the collection of revenue and the issuance of operating and vehicle licences associated with the board issued certificate of public necessity and convenience.

During the past fiscal year, there were 5,108 certificates processed, 2,571 new and amended PCV and PV operating licences and 71,185 vehicle licences and plates issued.



Truck weights are routinely checked

Transportation Regulation Division

This division is made up of the Licensing and Control and Program Development Branches. In addition to the branches, the division assumed responsibility for planning and co-ordinating the work to restructure the Licensing and Control Branch and move about 40 per cent of its staff to a new government building in Kingston, scheduled for completion in 1983.

Vehicle Registration System Project

Staff completed two reports approved by management: a concept report, May 1980, and preliminary design report, February, 1981.

The key features of the new system include: a plate-to-owner registration concept; a standard fee-for-plate concept; a capability to deny renewal of registration of an offending or replacement plate according to part II of the Provincial Offences Act; a staggered renewal system; a turn around document, inviting renewal of registration, and an on-line interactive update computer system.

Project staff is engaged in a number of activities to determine the detail design of the new system, including evaluation and selection of terminal hardware, planning for programming and implementation strategy.

Licensing and Control Branch

The branch consisted of driver licensing and control, vehicle licensing, vehicle records and control, reciprocity and prorate, plus licensing systems improvement offices.

The automated system handled 3.9 million passenger, 800,000 commercial, 600,000 trailer and 100,000 motorcycle and moped registrations to a total of 5.4 million. The remaining 200,000 consisted of snow vehicle and annual registrations handled manually.

Vehicle Licensing Office

Eleven MTC offices and 311 appointed issuing agents serviced and controlled by the vehicle licensing office, completed a total of 7.2 million transactions, including 409,000 new passenger car and truck registrations, and 1.7 million ownership transfers.

Net revenue after agents' commission, expenses, and adjustments was \$311.5 million.

Vehicle Records and Control Office

Staff was responsible for the maintenance of all vehicle registration records, and the provision of relevant vehicle registration information.

Licensing Systems Improvement Office

This office was established during the year to be responsible for the development of new and revised driver and vehicle licensing and control systems. It also monitored existing systems and initiated corrective actions as required.

Reciprocity and Prorate Office

This office was established during the year for registering commercial motor vehicles and buses in accordance with the new Canadian Agreement on Vehicle Registration (CAVR). Personnel will also



Driver testing is a day-to-day function

be responsible for negotiating new and administering existing reciprocal agreements for commercial vehicle registrations between Ontario, Canadian and United States jurisdictions.

Driver Licensing and Control Office

Day-to-day functions included driver licensing and post-licensing; maintenance and administration of the demerit point system; maintenance of all drivers' records; administration of licence suspensions; reinstatement of driving privileges; and a review of all drivers known to have medical or physical conditions.

1980	
Licensed Drivers.	4,993,531
New Drivers.	220,825
Male.	2,889,323
Female.	2,104,208
Demerit Point System	
Warning at 6 to 8 point level.	164,417
Interview at 9 to 14 point level.	38,904
Suspension at 15 or more point level. . . .	13,246
Suspensions for 30 days.	11,341
Suspensions for 6 months.	1,905
Suspensions for physical or medical reasons. . . .	1,810
Suspensions for drinking-and-driving. .	42,126

Program Development Branch

Personnel were responsible for the program and policy development, and the planning and evaluation services required for the management of the ministry's safety and regulation program. The branch includes: planning and development; vehicle standards; safety co-ordination and development; carrier policy and reciprocity; and dangerous goods transportation.

Planning and Development

This office undertook investigation of potential changes to the existing policies and laws affecting drivers, vehicles, and the truck and bus industries. Work took place on a project basis and policy options were guided through various levels of approval.

Staff was also responsible for integration of the transportation regulation program activities with the ministry processes for strategic and long-range planning. Development of an effective measurement and assessment process for these program activities continued.

Vehicle Standards

Personnel participated in the development of vehicle-related safety standards, legislation and regulations, and provided engineering expertise internally and externally in matters relating to vehicle design, safety standards and government control.

In addition they investigated accidents

in which vehicle condition may have been a contributory factor, recommended appropriate government action; and assisted the attorney-general by providing expert witnesses at trials and coroners' inquests.

Safety Co-ordination and Development

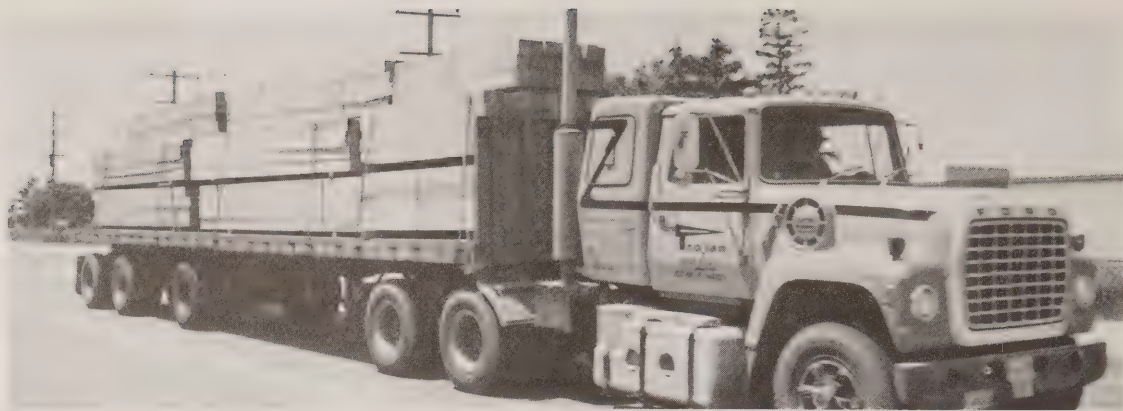
Staff functioned to ensure continued improvement of the effectiveness and efficiency of ministry highway safety regulation, providing liaison services for the co-ordinator of highway safety.

In addition, they participated with other offices in the design and implementation of development projects, providing a liaison service between the division and R&D as well as outside resources.

Carrier Policy and Reciprocity

Staff initiated, developed, revised and co-ordinated major transportation policies affecting the safe, efficient and economic movement of people and freight by the highway carrier industry in Ontario.

They also co-ordinated the Ontario Government activities regarding commercial vehicle reciprocity with other North American jurisdictions. These included development and implementa-



Canada-wide prorate reciprocity plan adopted

tion of the 'Canadian Agreement on Vehicle Registration (CAVR) and the expansion of Ontario's network of U.S. bilateral reciprocity agreements to include 26 jurisdictions.

They also conducted and co-ordinated special studies and negotiations related to government policies and reciprocity arrangements related to commercial vehicles; defined and participated in related policy and legislative projects conducted by MTC, the Ontario Government and inter-governmental organizations; and provided an information and liaison service on matters relating to government policies on the highway carrier industry.

During 1981/82, this office will transfer the administration of Ontario's reciprocity agreements to the newly created Prorate Office, which is in the Licensing and Control Branch. The Carrier Policy and Reciprocity Office will also be transformed into the Bus Transportation Office—whose main role be to act as a policy development and liaison office dealing with matters pertaining to drivers and vehicles responsibilities for the regulation of intercity bus transportation.

Dangerous Goods Transportation

The function of this office was to co-ordinate a provincial strategy on the transportation of dangerous goods. Staff, through discussion with shippers, carriers, the Federal Government and other agencies within the provincial government made recommendations aimed at adoption of a uniform regulation on the transportation of dangerous goods, co-ordinated by the federals.

Highway Safety Legislation

Two legislative bills amending the Highway Traffic Act provided an increased

level of safety for the public. Improvements were made for equipment standards for tires, lighting reflectors, vehicle suspensions, window tinting, front-axle loadings, safety devices and seat belt usage.

Staff introduced more flexibility in application of medical standards for the higher classes of driver licences. Experienced professional drivers with the support of their physician may now apply to the registrar to have certain medical requirements waived in order to retain their licences. In addition, drivers can also appeal downgrading decisions made by the registrar based on medical reasons to the Licence Suspension Appeal Board.

Intercity Buses

The Public Vehicles Act was strengthened to ensure all carriers offering public vehicle transportation under a leasing arrangement, properly met the requirements of the act. Additionally, several amendments were introduced which provided greater flexibility in the act's administration; elimination of prescribed forms, the ability to provide special operating authority to carriers and improved bus inspection powers for enforcement officers.

Highway Carrier Co-ordination

The office of the highway carrier co-ordinator was formed during the fall of 1980. Its purpose was to provide a single location within MTC where truck transportation policies, initially those relating to economic regulation, could be focussed.

Staff prepared terms of reference for, and implemented a series of studies for input to the Public Commercial Vehicles Act Review Committee. Structured with industry, shipper and other interested group representation, the committee was designed to completely overhaul the principles underlying existing PCV legislation.

The highway carrier co-ordinator was also responsible for the transportation

pricing function within the ministry, operating out of the transportation pricing office. This office conducted the small business consulting program which assisted small business enterprises identified by other arms of government as having transportation problems and insufficient internal resources to analyse them. It also sent out a monthly newsletter advising over 9,000 transportation users in the province about changes and new information which could be of interest to them in their daily business routines.

Canadian Agreement On Vehicle Registration

On January 21-22, 1980, in Victoria, British Columbia, the Ministers responsible for transportation and highway safety agreed in principle to a Canada-wide prorate reciprocity plan.

On October 2, 1980, nine provinces including Ontario, (Prince Edward Island and the Territories abstained) signed the Canadian Agreement on Vehicle Registration (CAVR) in Toronto. The prorate agreement, which provided full and free reciprocity for small vehicles, some specialized vehicles and charter buses, came into effect in Ontario on April 1, 1981. The agreement was to be implemented in Quebec, Nova Scotia and Newfoundland in 1982.

Object of the agreement was to provide for the smooth and efficient movement of goods across provincial boundaries. The thrust provided trucking companies and commercial carriers with the opportunity to apportion their licence fees in each participating province, based on the proportionate distances operated in those jurisdictions.

A prorate office to handle CAVR information and applications was opened as part of MTC's "single counter service" in the Downsview complex on March 1, 1981.

Finance and Administration



Computer tape storage

Services Division

Computer Systems Branch

The branch function is twofold: To co-ordinate and arrange funding for the ministry's system activities and advise MTC management on systems planning matters; to provide program managers with expertise in automated and related nonautomated systems and the acquisition, development and maintenance of such processing services.

It also acts as a clearing house for all computer program development with systems co-ordinators identifying systems opportunities and advising program managers. Currently there are more than 100 computerized systems supporting various in-ministry programs.

Systems Planning Support

This office has been responsible for implementing and monitoring efficient systems development methods in MTC as well as systems to support research and communications. The government's standard systems development methodology, SPECTRUM-1, continued to be supported at the project level. Each systems project was begun with a project proposal sponsored by user manage-

ment which collectively will form the basis for a ministry-wide plan.

In communications, computer support was provided to independent telephone companies to aid them in market analysis, plant depreciation analysis and accounting. The Ontario Communications Information System continued to provide information on radio and TV facilities, and audience characteristics to facilitate government policy deliberations.

The "construction resource evaluation package" was completed to aid the regions in managing the five-year construction program.

In the research area, energy-saving systems such as the highway illumination design system were implemented and are in demand by industry and municipalities. Technical support was provided to the QEW freeway surveillance and central system.

Management Information Systems

Office staff is responsible for development and support of systems which provide financial, administrative, and operational data to MTC managers and staff. The operations management system dealing with financial transactions, has been implemented in the 18 districts and regional offices as well as head office. All 19 locations are now automatically linked to the central computer data base. Implementation of similar functions to support highway

maintenance and vehicle fleet management is scheduled for 1981.

Development and implementation of a performance budgeting system for ministry use was completed. It supports planning and performance measurement of resource allocations for MTC programs.

In addition, a new human resources inventory system has been developed to help MTC executives manage the professional middle management staff resources.

Engineering Systems

There are about 50 operational systems maintained, including structural design, hydrology, road design, transportation planning and traffic studies. These studies support the work process in every facet of highway building and transportation planning.

Major projects completed were:

- Highway traffic accident system which provides statistical reports for traffic analysis studies. Also on-line retrieval, analysis and stratification of accidents available to the regional traffic offices.
- Advisability study and preliminary system analysis for the Ontario Highway Bridge Design Code.
- Soils and aggregate laboratory tests analysis and comparison.
- An interactive updating capability for the road design data base is available. Regional users may directly access information and complete the highway design at their own office.



Record and information storage meet current requirements

Regional Liaison and Production Services

Staff is responsible for provision of comprehensive data conversion, technical control, documentation and administrative support, computer services monitoring, graph plotting, and data communications services to all MTC users as well as municipalities and engineering consultants working on ministry projects.

In addition, they provide liaison services for MTC's five regions in the areas of computer needs studies, and day-to-day operating needs.

Eighteen regional and district sites are in daily contact with head office at Downsview through a variety of data communications modes. MTC now has 300 computer terminals, which expected to rise to over 500 in five years.

A large volume of accounting and operational data is transmitted at no cost over the government tie-lines each night. This volume is expected to double within two years.

Drivers and Vehicle Systems

Both offices are responsible for systems support for Transportation Regulation Division with regard to drivers and vehicles.

Within driver systems, a more modern and effective updating capability for the drivers data base was implemented to upgrade the services available to operational staff who directly serve the public. A medical information system which produces reference data on drivers and medical problems was introduced to support licensing administrators. Once again this year, up-to-the-minute driver information was supplied through on-line enquiry facilities to many thousand visitors at the CNE who wished to view their driving records.

Within the vehicles systems, commercial vehicles were incorporated in the automated vehicles system along with all motorcycles and mopeds. Both types of vehicles were switched from annual to perennial plates—with windshield stickers (commercial) and plate stickers (motorcycles and mopeds) for renewal purposes.

Addition of an on-line error correction procedure to the vehicle registration system and the streamlining of the client processing of renewals were major

benefits for the client organization. Improvements were also made to the systems for vehicle registration, agents issuing, motor vehicle inspection and commercial vehicle inspection.

With the automation of commercial vehicles, an information retrieval function was established to handle a steady influx of requests for information. Staff continued to support law enforcement agencies in the apprehension of drivers for hit-and-run and other offences.

Supply and Services Branch

This branch was responsible for development and monitoring of Ministry supply and services policies and procedures as well as the delivery of these services throughout head office and the Ministry of Northern Affairs; and purchase and disposal of motor vehicles for all of the government. These services were provided through the five offices listed below.

Direct cash sales of contract documents, various manuals and MTC's contract bulletin produced a revenue of \$108,000.

Instrument repair technicians tested MTC-owned survey equipment, traffic counters and allied equipment. The test shop facilities provided testing for components of the #170 microprocessor traffic-signal controller components before distribution to field locations.

The accounting and asset control section was responsible for monitoring and administrative control of MTC's movable asset inventory control program—some 100,000 items.

General Services

Government garage staff were responsible for the maintenance of government-owned sedans operated by senior MPPs and management as well as providing limousine and chauffeur service.

The tenders office promoted and maintained strict security over all tendering procedures, tenders in custody and all confidential matters relating to engineering and supply contracts.

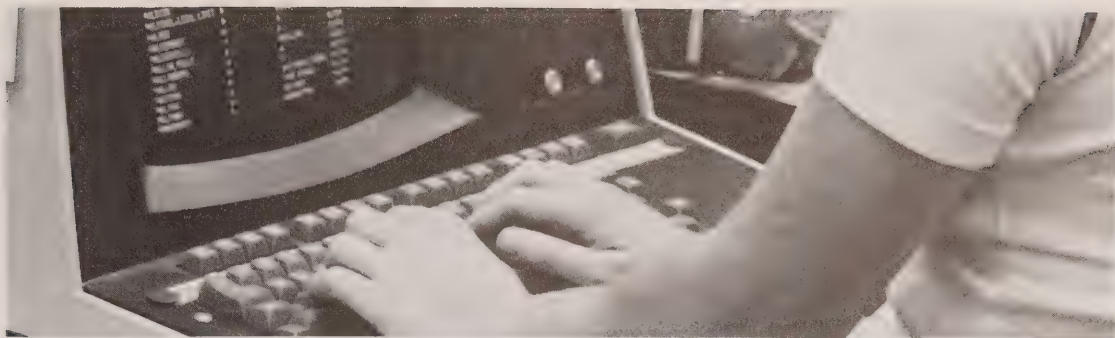
Approximately 7,000 tenders were received and processed for 1,100 contracts while some 2,000 contracts and suppliers attended tender openings.

In advertising, staff placed about 450 insertions on behalf of MTC on a head-office basis, regarding tender calls on engineering and supply contracts.

Record Services Office

Staff was responsible for providing assistance to all MTC organizations and the Ministry of Northern Affairs (MNA) in the efficient handling of records and information.

Policy and procedures for record retention and disposal were developed to suit current information requirements, using efficient file classification systems, microfilm and centralized storage and protection of vital records. Disposal of over



Word processors part of new look

11,000 cubic feet of records took place during the year.

Library services staff provided information and library resources for MTC and the transportation community. The library acquired all publications and subscribed to periodicals and newspapers for MTC. Other services included: reference services, computer searches, interlibrary loans, publishing the "Library News", a semi-monthly list of new listings. References exceeded 27,000.

Administration support section personnel provided office administration, typing and typesetting services for manuals and publications for a number of MTC organizations. Control records for sale and distribution of publications and maps were also maintained while sales were routed through this office, regional and district offices.

An "Office of The Future" pilot project was implemented for evaluation during 1981. This was an experimental structure designed for provision of administration support services from a centrally-organized service group. Factors such as impacts of technology in the office environment, services provided, productivity, cost benefits and behavioural issues are to be evaluated to determine their impact on the Ministry's offices.

Purchasing and Supply Office

Purchasing section staff was responsible for the purchase of all construction and maintenance materials, and general ministry supplies, totalling about \$67 million.

The vehicles and equipment section acted in the purchase of vehicles and equipment through standardization of specifications and consolidated purchasing for all Ontario Government ministries and agencies. Here purchases totalled approximately \$43 million.

The stores section allowed MTC to take advantage of savings by bulk purchasing, also facilitating MTC's operational function by having materials available for later use. It also reconditioned and stored bailey bridge components for emergency use. Currently, there are 185 such installations in the province.

Field review and disposal office staff facilitated the disposal of all used ministry equipment surplus material and all Ontario Government motor vehicles, via public auction or tender. Sales totalled \$2.7 million.

Graphic Services Office

Staff provided printing and duplicating services, including:

A wide variety of high quality, black-and-white and color reproduction services, using photographic, diazo, screen processing and rapid, turn-around photo copy methods;

A commercial art and display service for various MTC programs;

Administration of the MTC and MNA identification card-issuing program;

Approximately 16.6 million impressions were produced in the offset reproduction facility;

More than 20,500 requests for reprographic services were processed;

And 240 requests for commercial art designs (over 3,000 singular items) were completed;

Display unit personnel participated in eight exhibitions.

Special Services Office

Staff were responsible for administration of a capital building program involving major building and space requirements, including office furnishings and equipment at head office, and regional and district headquarters. They were also responsible for the provision of accommodation, telecommunications and postal services within MTC and administration of service centres on controlled access highways.

Plans were completed and tenders awarded for the construction of the John Rhodes Driver Examination Centre which will be located in Brampton.

Project management section also administered numerous projects involving new equipment installations at head office, regional and district headquarters. Other areas of involvement included the implementation of staff safety and building security systems, building refurbishing/maintenance and an interior and exterior directional signage system for the Downsview complex.

Drivers and Vehicles licensing and control office was moved from Queen's Park to Downsview. It was the culmination of an extensive and complex design and relocation program implemented to secure the office space and facilities required to accommodate licensing and control office functions.

To this end, central region operations located at Downsview and 3501 Dufferin St. were moved to 5000 Yonge St. Additionally, accommodation services staff realigned and/or relocated eight other offices in the Downsview complex, resulting in the redesign of approximately 120,000 square feet of office space and services and included the relocation of over 1,200 employees.

Staff were also responsible for inventory control relating to the retrieval and distribution of ministry-owned office furniture and equipment. An integral part of this function included the issuing and processing of orders and invoices relating to the purchase and repair of office furniture and equipment. This operation issued approximately 1,000 purchase orders, and processed over 6,000 invoices.

Special services staff conducted 23 information processing feasibility studies, and 13 word processing reviews. Post-study involvement included selection and acquisition of automated word-processing equipment, client training and the development and implementation of programs commensurate with client requirements. As a result, the word processing, information storage and retrieval capabilities were upgraded in five different offices.

Major telecommunication projects completed in the past year included



Close to seven million pieces of mail were handled

multi-channel radio systems for Chatham and Cochrane districts. Also of major importance was completion of a radio-propagation survey, and subsequent preparation of path profiles and tender specifications for a new multi-channel radio system for Sault Ste. Marie district scheduled for 1981-82.

Radio system tests and specifications were also completed for the total upgrading of the New Liskeard district radio system also scheduled for 1981-82. And eight radio towers, 200 feet in height, were erected either for new radio systems or to replace existing but aging radio towers. Consulting and evaluation services were provided to 12 townships throughout the province relative to the acquisition of ministry-subsidized radio systems.

In the field of telephone communications, a new multi-feature telephone system was installed at the central region office complex at 5000 Yonge Street, Toronto. After an initial shakedown period, the system is now functioning well and has a good level of acceptance.

Many large telephone system layouts and relocations were completed—with the largest number of significant system redesigns occurring as a result of implementation of the D&V. divisions personnel and equipment relocation from Queen's Park to Downsview. A large number of data lines were installed and relocated as the number of computer associated terminals, in use by the ministry, grew substantially.

The promotion of teleconferencing systems continued and a significant increase in the frequency of use is reported with a five-fold increase occurring between October 1980 and March 1981.

Other major activities conducted

during the past year included installation, relocation, repair and implementation of non-directional radio beacons located at MTC sponsored remote northern airstrips.

A total of 642 work orders involving telecommunication projects of varying sizes were processed during the fiscal year.

Personnel were also responsible for incoming and outgoing mail handling, courier mail service to all regional and district offices and Downsview teletype centre activities. The handling of a heavy volume of licence plates, permits, drivers' licences and returned licence plates was also a responsibility.

Volumes of mail reached:

Outgoing mail.	3,374,661
Incoming mail.	3,523,816
Teletype messages.	153,003
Orders processed.	47,836
Plate cancellations.	718,403

Twenty-three service centres were in operation during the year, 19 on the MacDonald-Cartier Freeway (401) and four on Highway 400. Revenue derived from the locations exceeded \$4,292,000. Facilities and services, available at the centres on a 24-hour basis, included restaurants, washrooms, public telephones, first aid, automotive fuels and lubricants, emergency towing, repair services, and 21 picnic rest areas.

New facilities for handicapped persons were installed at six centres. Facilities such as reserved parking, telephones, wheelchair ramps, etc., were provided and/or improved at 13 other centres.

Outdoor information facilities were constructed at two centres, enabling the motoring public to access basic travel, lodging and local points of interest

information on a 365 day/24 hour basis. Full service information booths were operated at 18 centres from mid June up to and including the Labour Day weekend.

Over 500 individual inspections were conducted at ministry-affiliated service centres. This program provided coverage on all holiday weekends, and most regular weekends. The co-operation of site management and staff resulted in a low level of customer complaints during the 1980-81 fiscal year.

Property Office

Policy and procedures for appraisal techniques, acquisition of property, the rental, management and disposal of surplus lands, and the quasi-legal aspects of the purchase of real estate in the title-searching and conveyancing functions are developed by this office.

Using these policies and procedures, staff in five regional offices negotiated 941 amicable property settlements. The Ministry expropriated 187 properties to obtain title for land required to permit contracts to proceed.

MTC expended \$13,022,414 in payment of compensation in acquiring title to lands required for highway projects. An additional \$751,179 was paid to owners affected by expressways, subject to cost-sharing agreements between the Ministry and municipalities involved.

Revenue of \$13,221,956 from the sale of surplus lands and \$662,874 from leasing properties was received.

The Ministry's extensive staff-training program was continued and 10 staff members attended courses and examinations in real estate matters.

Internal Audit Branch

Branch staff was responsible for MTC's audit activities and is also the appointed auditor-of-record for the Ministry of Northern Affairs. Under the general direction of the Deputy Minister, staff was segregated into the following three areas of responsibility to accommodate this function:

- Operational Audit
- Engineering Audit
- Project and EDP Audit

Operational Audit Office

Personnel were engaged in the expenditure, revenue and operational review of the ministry's 18 district offices, five regional offices and head office administrative units, as well as some 300 private license-issuing agents throughout Ontario.

Staff also performed audits in municipalities throughout the province, dealing with MTC subsidized road, transit and municipal airport expenditures. This function extended to cover such agencies as Toronto Area Transit Operating Authority, Ontario Telephone Services Commission and Ontario Highways Transport Board, as well as specific programs concerning expressways and connecting links. During the fiscal year, audit procedures were also carried out on behalf of the Ministry of Northern Affairs.

Engineering Audit Office

This office, with staff located in five regional offices and head office, is responsible for auditing expenditures on ministry-owned and subsidized contracts.

Regional offices reviewed and analysed the adequacy of payment records for compliance with governing specifications, standards and regulations.

At head office, claims and design section staff was engaged in the auditing of ministry and contractors' records related to engineering claims in association with the engineering claims office, with values ranging to a high of \$950,000.00. In addition, they analysed MTC contract price negotiations and conducted design audits to ensure adherence to the Ministry's requirements.

Staff in payments and procedures groups, also located at head office, audited data in support of final ministry payment on capital and municipal contracts; reviewed and approved supplemental

estimates of cost, which required audit certification prior to ministry approval; and sundry payment certificates to ensure validity and accuracy. Staff also lectured at various construction technical courses, as well as conducting in-house training programs for development of engineering audit staff.

Throughout 1980-81, staff of the engineering audit office performed special assignments, answered queries and provided assistance on engineering-oriented matters, where their particular expertise is required. They also attended various meetings related to development and revision of construction specifications, standards and procedures.

Financial Planning and Administration Branch

Effective July 1, 1980, the Deputy Minister approved a change in the organization reporting to the ADM Finance and Administration. The former Financial Branch and Financial Management Services office were merged to become the Financial Planning and Administration Branch.

Organization was announced on Oct. 15, 1980, consisting of three major units:

- *Budgetary planning and control*—responsible for planning, evaluating, developing, controlling and analysing MTC's budget;
- *Financial systems*—responsible for

Project & EDP Audit Office

Audits were performed in accordance with special agreements between MTC, Crown corporations and private enterprise, involving items of a complex and contentious nature. Force accounts, claims, utility moving costs and negotiations audits were carried out, mostly on a request basis, involving suppliers' records.

EDP audits of the operations management system and the vehicle registration system were carried out. Staff in the EDP audit area are responsible for conducting audits of the ministry's production EDP systems, reviewing controls and security during major systems development and the design of computer audit techniques.

developing, and maintaining those procedures necessary to properly record the ministry's financial transactions and provide data for managers to effectively monitor and control their operations;

- *Chief accountant*—responsible for those functions usually associated with an accounting office, e.g. payroll, payment of accounts, collection of revenue and receivables, maintenance of financial records, preparation of statements, etc.

Managers of the three new units were appointed on March 2, 1981, following a government-wide competition.

Office of Legal Services

This office is a law office within the Ministry, providing legal services to the Minister and MTC staff. The legal officers are members of the Ministry of the Attorney General's staff seconded to MTC and located at head office and in each of the regions.

Staff provided legal advice on all aspects of the Ministry's programs and prepared the legal documentation through which such programs were carried out.

Legal office counsel provided Ministry representation before the many administrative boards and tribunals with which the Ministry came into contact and conducted prosecutions for offences under the Ministry's statutes.

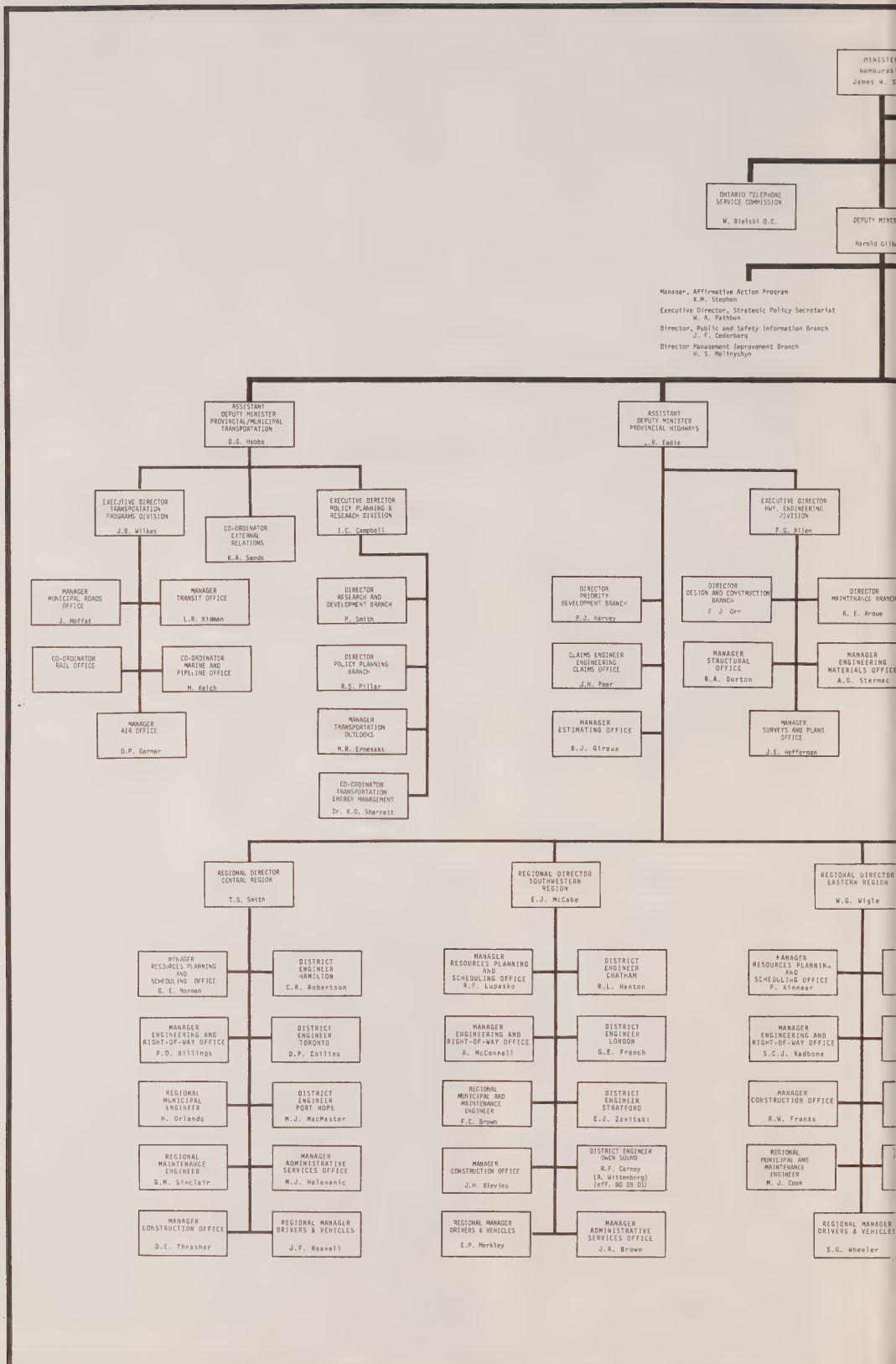
Claims Section

The Claims Section (formerly the Insurance and Claims Office) is charged with the responsibility of dealing with a large volume of claims filed by the public against the Ministry, as well as claims by the Crown against third parties.

Investigation of such claims involved obtaining detailed reports and information from various sources such as the Ministry's regional and/or district authorities, from police, independent witnesses, etc. Personnel conducted field inspections wherever necessary.

The section institutes claims against the public for damage to Crown property such as bridges, light standards, guide rails, signs, etc. It also arranges for legal action to be taken against responsible parties through the Ministry of the Attorney General.

In all, over 12,500 claims were handled during the fiscal year 1979-80.





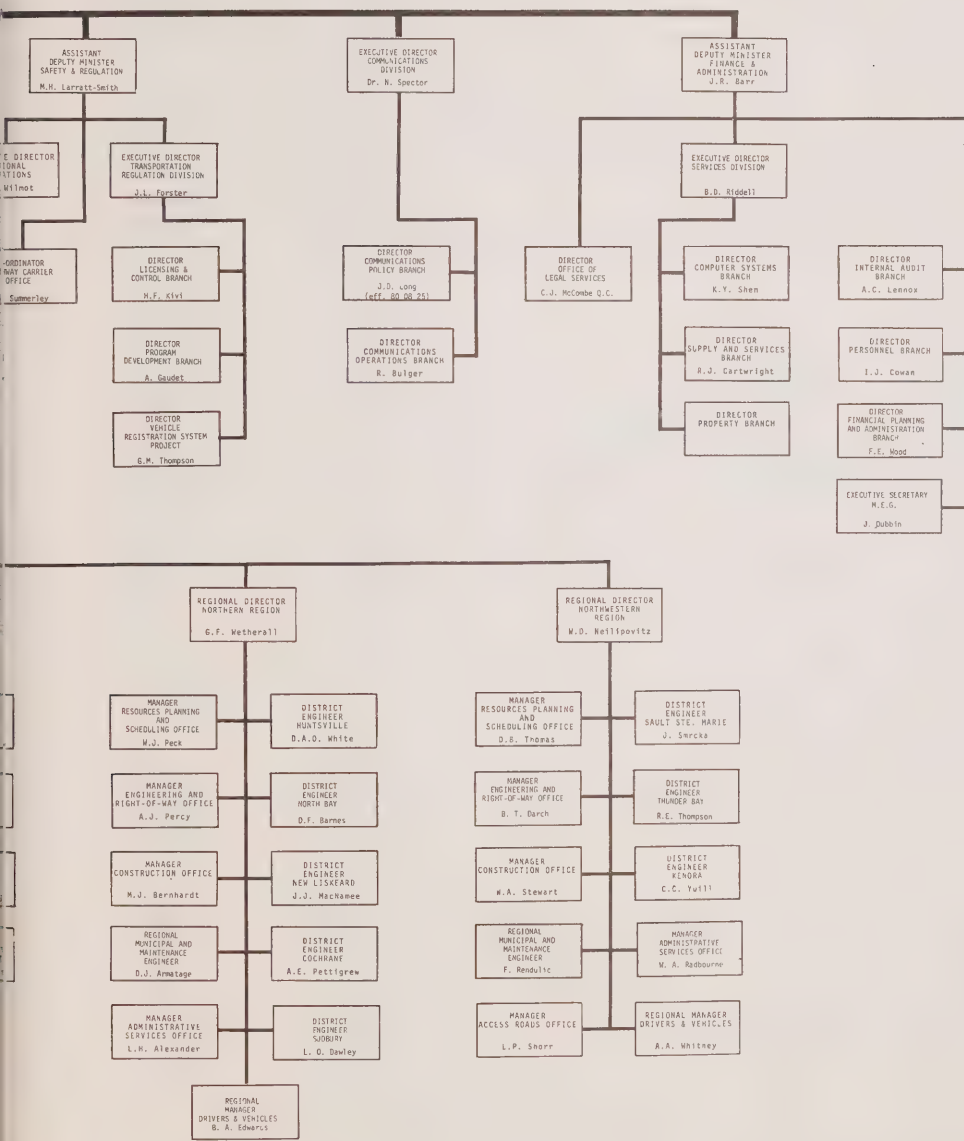
Ministry of
Transportation and
Communications

PARLIAMENTARY
ASSISTANT
Robert Eaton, M.P.P.

TORONTO AREA
TRANSIT OPERATING
AUTHORITY
L.N. Parsons

ONTARIO HIGHWAY
TRANSPORT BOARD
B.B. Alexander O.C.

Strategic Policy Committee



CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1979	1980
6	Failure to register a vehicle	4,110	4,860
7(1)	False statement	113	77
7(2)	Fail to notify new address	2,862	2,380
8	Fail to have number plates	19,678	21,270
9	Violations as to number plates	6,518	4,211
10	Improper use of number plates	1,194	735
13	Fail to have operator's licence	23,585	19,358
14	Fail to produce operator's licence	27,927	24,882
18	Operation of motor vehicle by person under 16	195	140
27(2)	Unlawful possession of permit	32	22
27(3)	Unlawful possession of licence	245	181
30(b)	Driving while licence is suspended H.T.A.	171	192
35	No garage licence	12	26
36	Record of wrecked vehicle violation	28	44
37	Improper lights	12,556	11,099
39	Defective brakes	1,760	1,597
41	Faulty equipment (mirror, windshield, etc.)	702	475
47	Driver's view obstructed	145	368
48	Windows obstructed	1,514	1,002
49	Excessive noise/smoke/fumes	26,408	22,020
50	No slow-moving-vehicles sign	58	86
52A(2)	Radar warning device prohibited	316	797
53	Fail to have proper trailer attachments	782	9,195
55(2)	Unsafe vehicle	8	0
55(3)	Failing to submit to vehicle inspection	2,214	1,645
57	Drive unsafe vehicle	5,065	4,369
58	Certificate of mechanical fitness violation	36	147
61	No name of owner on commercial vehicle	1,859	1,416
62	Drive/ride motorcycle no safety helmet	1,995	1,807
63A(2)	Remove/modify/inoperative seat belt assembly	1,237	858
63A(3)	Failure/improper use seat belt assembly — driver	63,333	51,744
63A(4)	Passenger — failure to ensure seat belt use	1,073	560
63A(6)	Driver — failure to ensure passenger seat belt use	555	494
64	Overweight	16	2
65(6)	Special permit violation	2,868	1,808
66(1)	Overload in excess of permit	70	30
66(2)	Fail to produce commercial ownership permit	390	195
66(4)	Spring regulations — Overload	46	1
67	Overhanging load	461	1,678
70	Excessive width or length of vehicle	115	4
82	Speeding 30 mph or more over limit	0	0
	Speeding more than 19 less than 30 mph	1	0
	Speeding more than 10 less than 20 mph	8	0
	Speeding 11 miles per hour	8	0
	*Speeding 50 km/h or more over the limit	13,152	12,046
	*Speeding more than 29 less than 50 km/h	94,202	98,175
	*Speeding more than 15 less than 30 km/h	291,931	297,554
	*Speeding under 16 km/h per hour	392,506	378,509
83	Careless driving	20,531	20,510
85	Unnecessary slow driving	189	154
86	Fail to obey signal of police officer	2,844	304
87	Fail to yield right of way	200	172
88	Fail to stop at through highway	55,993	49,634
90	Fail to obey yield sign	739	595
91	Fail to yield — from private road	7,495	6,153
92	Pedestrian crossover violation by driver	5,926	4,900
93(1)	Improper right turn at intersection	3,609	2,315
93(2)	Improper left turn at intersection	6,034	4,224

*Km/h effective September 6, 1977

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1979	1980
93(3)	Improper left turn into intersecting highway	5,474	3,596
93(4)	Improper left turn from one-way highway	1,895	1,190
93(5)	Improper left turn into one-way highway	412	221
93(6)	Improper left turn from one-way highway to one-way highway	924	661
94(1)	Fail to signal for turn	15,136	13,450
94(2)	Fail to signal — moving from parked position	3,696	3,109
94(4A)	Improper manual signal	0	1
94(5)	Improper directional signal	59	63
94(6)	Improper use of signaling device	82	82
94(7) (7B) (7A)	Fail to signal	169	109
95	Prohibited U-turns	618	328
96(5)	Disobey red signal light	40,146	45,165
96(6)	Disobey an amber	12,885	12,032
96(7) (8) (9)	Flashing red-amber-green arrow	3,879	2,234
96(10)	Fail to give right-of-way to pedestrian	1,078	890
96(11)	Prohibited turn	26,751	23,478
96(19)	Disobey traffic signal	0	2
96A(3)	Disobey portable lane control signal — red light	380	289
96A(4)	Disobey portable lane control signal — amber light	117	73
97	Drive right side of multi-lane highway	271	265
98(1) (2)	Fail to share road	2,873	2,216
98(3)	Fail to move to right	170	151
98(4)	Vehicle or horsemen overtaking others	485	394
98(5)	Horsemen or vehicles overtaking bicycles or tricycles	27	23
98(6)	Improper passing	21	24
98(7) (a) (b)	Improper passing	1,430	1,313
99	Drive left of centre of highway	1,901	1,664
100(1)	Passing to right of vehicle	53	27
100(2)	Unsafe passing to the right	3,771	3,480
102	Wrong way on a one-way street	7,398	6,495
103(a)	Unsafe lane change	6,623	5,773
103(b)	Drive in centre lane of three lane highway	214	176
103(c)	Fail to drive in slow moving traffic lane	3,393	3,988
104(a) (b)	Improper driving on divided highway	1,156	987
105 105(1)	Following too closely	17,722	15,645
105(2)	Following too close in commercial vehicle	324	432
106(1)	Fail to yield to fire department vehicle, etc.	397	299
106(2)	Following a fire department vehicle	30	22
109	Crowding driver	490	383
110	Fail to stop for crossing (signal)	208	193
111	Drive through, under or around railway barrier	181	202
112	Improper opening of vehicle door	429	384
113(1)	Improper approach or passing a stopped streetcar	164	167
113(2)	Pass streetcar on left side	52	40
114	Improper driving when approaching horses	0	0
115	Fail to use passing beam	1,174	1,143
116	Improper parking on highway	495	1,023
116(8)	No warning lights on commercial vehicle	24	14
116(9)	No flares	27	16
116(10)	Vehicle interfering with traffic	891	643
117	Racing	161	127
119(b)	Failure to stop school bus or public vehicle at railway crossing	9	18
120(2)	Fail to stop for school bus	2,577	2,615
120(3)	School bus: Fail to actuate signals	30	25
120(4)	Unlawful use of red signal lights on school bus	7	5
120(5)	School bus: Failure to cover signals and signs	14	19
120A(3)	Fail to obey school crossing stop sign	85	91
124	Littering highway	1,713	1,541
125(2)	Fail to obey a direction sign	4,144	4,065
139	Fail to report accident	3,101	3,468
140	Fail to remain at the scene of an accident	3,476	2,747
141	Fail to report damage to highway property	739	768
	Other offences	26,659	32,773
	TOTAL	1,316,460	1,261,546

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

REGULATIONS UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1979	1980
702(1)	School bus violation	4	5
418(13) (14)			
(15)	Number plate violation	1,108	998
418(24) (1)	Instruction permit violations	318	118
418(25) (2)	Drive motorcycle, no endorsed licence	389	179
418(27)	Restricted licence violation	125	37
418(28)	Fail to notify name/address change	720	312
418(29) (1)			
a b c d e	Driver licence violation	4	238
418(32) (1)	Only single beam headlight	85	46
418(39)	Seat belt violation	0	0
418(40) (1) (2)			
(3)	Motorcycle violation	126	96
421	Improper parking	236	89
433(14)	Prohibited use of studded tires	130	118
906(2)	Classified licence violation	4,056	4,052
	Others	5,474	5,965
	TOTAL	12,780	12,253

CONVICTIONS REGISTERED UNDER THE CRIMINAL CODE (CANADA)

SECTION	OFFENCES	1979	1980
203	Criminal negligence causing death	15	16
204	Criminal negligence causing bodily harm	6	8
233(1)	Criminal negligence	138	141
233(2)	Fail to remain	2,277	2,060
233(4)	Dangerous driving	1,957	1,782
234	Drive ability impaired	21,424	18,944
234(1)	Roadside	—	242
235(2)	Fail to take breathalyzer	3,314	3,035
236	Over .08 alcohol	19,862	20,593
238(3)	Drive while disqualified	11,403	9,679
	Others	0	0
	TOTAL	60,396	56,500

SUMMARY OF CONVICTIONS

Criminal Code	60,396	56,500
Highway Traffic Act	1,316,460	1,261,564
Regulation H.T.A.	12,780	12,253
Municipal bylaws	34,876	20,349
Motor Vehicle Accident Claims Act	13,666	3,865
Compulsory Automobile Insurance Act	0	16,480
Public Commercial Vehicles Act	2,295	8,835
TOTAL	1,440,473	1,379,846

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

SECTION	OFFENCES	1979	1980
2(1)	Drive or permit to drive unregistered vehicle	263	135
2(2)	Fail to register	6	5
2(3)	Fail to provide evidence of issue of permit (no plate)	14	3
2(7)	Fail to display registration number	163	64
2(8)	Fail to display evidence of permit	358	119
3(1)	Make false statement	2	2
3(2)	Fail to notify change of address	1	5
3(3)	Fail to notify change of ownership	15	6
4	(Plate) — Registration number obstructed	0	3
4(2) A & B	Use defaced or altered plates	0	0
4(2) C	Improper plates	0	0
5	Drive on prohibited highway	109	35
6(2)	Drive in area not designated	0	0
7	Improper crossing of roadway	3	1
7(1)	Person under age 16 drive on highway	0	0
7(2)	Permit person under age 16 to drive on highway	2	0
7(3)	No driver's licence	7	0
7(5)	Permit unlicensed person to drive	1	0
8(1)	No operator's licence	139	39
8(2)	Drive across highway no licence	11	7
11(1)	Operate (or permit operation) uninsured vehicle	248	115
11(2)	No insurance	16	0
11(3)	Fail to produce evidence of insurance	47	28
11(4)	Produce false evidence of insurance	1	1
12(1)	Fail to report collision	18	6
12(2)	Police officer fail to forward report of accident	0	1
13(1)	Speeding	21	9
13A	Careless driving	42	15
14(1)	Fail to produce licence	41	15
15(1)	Improper muffler	2	0
16	Towing on serviced roadway prohibited	2	2
17	No helmet	240	72
22	Trespassing (no written permission)	12	6
24(3)	Disobey signs on highway or public trail	11	6
	Others	35	36
	TOTAL	1,830	736

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

SECTION	OFFENCES	1979	1980
2	Disobey police officer	1	0
3	Fail to yield to vehicle on right	2	3
4	Disobey sign	14	12
5(1) (b)	Fail to yield — from adjoining property	0	0
5(2)	Improper crossing of roadway	0	0
6(3)	Improper left turn	0	0
7(1)	Fail to signal	2	1
7(2)	Fail to signal from stopped position	0	0
7(3)	Improper signal	0	0
7(4)	Fail to signal stop	0	0
8(a)	U-turn — no clear view	0	0
8(b)	U-turn — railway crossing	0	0
8(c)	U-turn — on hill — no clear view	0	0
9	Disobey traffic signal light	1	2
10(1)	Fail to share roadway	1	0
10(2) (b)	Passing when roadway not clear	0	1
11	Drive left of centre	2	3
12	Pass on right — not in safety	0	0

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

13	Following too closely	0	0
14(1)	Fail to stop at railway crossing	0	0
14(2)	Cross railway improperly	0	0
15(1) (a)	Park on roadway	0	0
16	Speeding	0	0
17	Careless driving	1	2
19(a)	Drive on King's Highway (prohibited)	0	0
20	Improper lights	0	0
21	Improper or no lights	3	2
	Others	6	7
	TOTAL	33	33

CRIMINAL CODE OF CANADA (MOTORIZED SNOW VEHICLES)

SECTION	OFFENCES	1979	1980
233(2)	Fail to remain	0	0
233(4)	Dangerous driving	0	0
234	Impaired driving	12	9
235(2)	Fail to take breathalyzer	0	0
236	Over .08 alcohol	0	0
238(3)	Drive while disqualified	0	0
	TOTAL	12	9

MUNICIPAL BYLAWS (MOTORIZED SNOW VEHICLES)

25

0

SUMMARY OF CONVICTIONS (MOTORIZED SNOW VEHICLES)

Motorized Snow Vehicles Act	1,830	736
Criminal Code of Canada	12	9
Regulations	33	33
Bylaws	25	0
TOTAL	1,900	778

SUSPENSIONS

COURT ORDERED SUSPENSIONS H.T.A.	1979	1980
Careless driving	935	550
Speeding over 30 mph (50 kmh)	217	152
Racing	30	16
Fail to remain	245	131
Drive while licence suspended (H.T.A. Section 30b)	9	3
Others	65	23
	1,501	875

DEMERIT POINT SYSTEM SUSPENSIONS

15 demerit point accumulation	11,025	13,246
Fail to attend interview	2,220	1,280
As a result of interview	511	467
	13,756	14,993

DISCRETIONARY SUSPENSIONS (H.T.A. – SECTION 27)

Medical or physical condition	1,770	1,810
Operating record	601	3
	2,371	1,813

SUSPENSION FOR:

Motor Vehicle Accident Claims	6,192	4,234
Failure to pay Judgment	1,248	1,286
Default in payment of traffic fine	60,412	63,463
	67,852	68,983

MANDATORY SUSPENSION H.T.A.

Criminal Negligence	158	164
Dangerous driving	1,913	1,738
Impaired	20,957	18,677
Fail to provide breath sample	3,222	2,998
Blood/Alcohol .08	19,448	20,224
Fail to remain at scene	2,249	2,027
Drive while disqualified	11,293	9,600
Fail to provide (RDSI)	106	227
	59,346	55,655
	144,826	142,319

DRIVER DEMERIT POINT SYSTEM

6 POINT LEVEL		
Advisory letters issued	150,395	164,417
9 POINT LEVEL		
Interview conducted	52,212	38,904

SUSPENSION

Drivers who reached suspension level through point accumulation	11,025	13,246
Drivers suspended for failure to attend interview	2,220	1,280
Drivers suspended as a result of interview*	511	467
Total suspensions under point system	13,756	14,993

*Because of unfavourable records and/or attitudes

LICENCE CANCELLATION

Licences cancelled due to unsatisfactory driver re-examination at time of point system interview	14	0
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SUSPENSIONS

DRIVER MEDICAL REVIEW	1979	1980
Total Cases Reviewed	40,319	77,035
Satisfactory Reports	38,960	75,198
Unsatisfactory Reports as to class	*1,359	710
Totally unsatisfactory		1,127

DRIVER OPTOMETRICAL REVIEW HIGHWAY TRAFFIC ACT (SECTION 144)

Total Cases Reviewed	3,015	3,917
Satisfactory vision reports filed	1,044	1,232
Drivers required to wear prescribed lenses while driving — no previous restriction	1,773	2,464
Unsatisfactory vision reports	198	221

*Totally unsatisfactory and unsatisfactory as to class combined

DRIVER CONTROL STATISTICS — 1980 SUMMARY SHEET

	1978	1979	1980
NUMBER OF LICENSED DRIVERS IN ONTARIO	4,714,121	4,858,351	4,993,531
CONVICTIONS RECORDED IN RESPECT TO THE OPERATION OF:			
Motor Vehicles	1,460,168	1,440,473	1,379,846
Motorized Snow Vehicles	2,955	1,900	778
TOTAL	1,463,123	1,442,373	1,380,624
TOTAL DRIVER LICENCE SUSPENSIONS APPLIED	132,106	144,826	144,090
MEDICAL AND OPTOMETRICAL REVIEWS CONDUCTED	138,802	43,334	80,952

TRENDS IN MOTOR VEHICLE ACCIDENTS

Death and Injury Rates Over the Period 1971-1980

Between 1971 and the end of 1980, Ontario's population and the number of licensed drivers, motor vehicle registrations and motor vehicle accidents (with the exception of the years 1976, 1978 and 1980) were all on the rise. During the past ten years, traffic deaths reached a high of 1,959 in 1973 and declined to a low of 1,420 deaths in 1977.

During the year 1980, the number of deaths decreased 3.3% from 1,560 in 1979 to 1,508 in 1980. The population grew from 8.55 million to 8.57 million. The motor vehicle accident death rate per 100,000 population decreased from 18.3 to 17.6 this year.

The death rate over the past five years ranged from 17.0 to 18.3 which are the lowest death rates per 100,000 population since 1946 at which time the population was 4.09 million and the death rate was 16.8.

The total number of injuries were up marginally from 101,321 in 1979 to 101,367. The 1980 injury rate per 100,000 population decreased fractionally from 1,185.6 in 1979 to 1,182.8 this year.

During 1980, the number of motor vehicle accidents reported totalled 196,501, a decrease of 0.4 percent from the 1979 total of 197,196. There were decreases of 1.5 percent in fatal accidents

and 3.3 percent in the number of persons killed. Personal injury accidents and persons injured increased 0.3 percent and 0.04 percent respectively.

During the past three years, the motor vehicle accident rate per one million kilometres travelled remained at 2.7. The fatal accident rate and death rate per 100 million kilometres travelled during the past four years remained the same at 1.8 and 2.1 respectively.

The number of kilometres driven in 1980 was estimated at 72,491,477,000 an increase of 0.4 percent over the 1979 figure of 72,171,417,000.

MINISTRY EXPENDITURE BY HIGHWAY

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
2	Lancaster—Windsor	\$ 6,403,284	3,503,253
2A	Scarborough—Hwy. 2	—	47,620
3	Fort Erie—Windsor	8,936,363	1,991,426
3B	Windsor—Hwy. 18	825	—
4	Port Stanley—(Creemore)	27,851	1,176,324
5	Toronto—Paris	338,754	641,418
6	Hwy. 24—Tobermory	2,261,973	2,343,810
7	Ottawa—Sarnia	5,997,371	4,497,027
7A	Hwy. 115—Hwy. 12 (Manchester)	477,428	259,320
7B	Peterborough—Chemung Corners	1,436,091	151,361
8	Winona—Goderich	491,972	745,518
9	Hwy. 11—Kincardine	36,326	1,244,303
10	Port Credit—Owen Sound	1,123,582	1,153,438
11	Toronto—Rainy River	25,598,598	9,034,266
11B	At New Liskeard	714,032	100,327
12	Whitby—Midland (7)	2,149,211	852,038
14	Bloomfield—Marmora	1,574,113	270,333
15	Kingston—Carleton Place	849,672	506,676
16	Johnstown—Ottawa	28,542	438,961
17	Quebec Boundary—Manitoba Boundary	32,721,713	8,547,559
17B	At North Bay	1,920	4,713
18	Leamington—Windsor	735,052	238,307
19	Port Burwell—Tralee	1,638	499,964
20	Niagara Falls—Hamilton	201,290	504,068
21	Hwy. 3 (Morpeth)—Owen Sound	2,162,791	1,284,123
22	London—Hwy. 7	—	190,958
23	Hwy. 7—Hwy. 9 (Teviotdale)	1,291	460,116
24	Hwy. 59—Collingwood	60,869	1,001,624
24A	Paris—Galt	—	44,451
25	Oakville—Hwy. 89	23,683	476,355
26	Barrie—Owen Sound	1,030,509	583,382
27	Toronto—Penetanguishene	3,299,948	968,186
28	Port Hope—Bancroft	215,050	575,801
29	Brockville—Amprior (15)	1,051,500	409,500
30	Brighton—Havelock	182,461	202,902
31	Morrisburg—Ottawa	39,618	420,737
32	Gananoque—Hwy. 15	56,438	71,412
33	Kingston—Stirling	1,009,105	498,499
34	Hwy. 2 (Lancaster)—Hawkesbury	311,613	308,708
35	Hwy. 401 (Newcastle)—Dwight	532,497	864,977
35A	Fenelon Falls—Hwy. 35	—13,813	13,813
36	Burleigh Falls—(Hwy. 7)	2,132,052	292,752
37	Belleville—Hwy. 7 (Actinolite)	93,718	165,297
38	Kingston—Hwy. 7 (N. of Sharbot Lake)	—	286,875
40	Blenheim—Sarnia	447,007	612,124
40B	At Sarnia	—	1,723
41	Napanee—Pembroke	1,914,688	871,425
42	Brockville—Westport (29)	5,611	207,957
43	Alexandria—Perth	43,500	782,122
44	Hwy. 17—Hwy. 29 (Almonte)	—	76,075
45	Cobourg—Norwood	—	226,239
46	Hwy. 7 (E. of Manilla)—Bolsover	21,854	108,120
47	Hwy. 48 (N. of Hwy. 7)—E. of Hwy. 12	5,157 CR	471,693
48	Toronto—Hwy. 35 (Coboconk)	544,123	781,771
49	Picton—Hwy. 401 (W. of Desoronto)	—	91,083
50	Toronto—Hwy. 89	21,847	430,391
51	Rondeau Prov. Park—Jct. Hwy. 3	—	19,947
52	N. of Hwy. 97S—Hwy. 2	10,000	191,318

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
53	Hamilton—Hwy. 2 (Eastwood)	3,945	278,922
54	Cayuga—Cainsville	1,133	304,977
55	Hwy. 401—Niagara	22,156	81,523
56	Jct. Hwy. 3—Jct. Hwys. 53 & 20	5,024	141,149
58	Port Colborne—St. Catharines	49,254	289,405
58A	Port Colborne (Hwy. 58 to Jct. Hwy. 140)	954	1,741
59	Long Point—Shakespeare	380	531,122
60	Hwy. 17 (W. of Renfrew)—Huntsville	384,842	1,089,413
61	International Bdry.—Thunder Bay	189,314	242,669
62	Hwy. 14 (N. of Belleville)—Pembroke	956,199	1,046,005
63	North Bay—Quebec Border	29,576	259,374
64	Sturgeon Falls—Hwy. 11	1,264,819	627,313
65	Quebec Border—Matachewan	1,098,250	508,326
66	Quebec Border—Hwy. 65	2,653,323	401,634
67	Iroquois Falls—Hwy. 101	42,371	145,972
68	Hwy. 17 (Espanola)—S. Baymouth	18,586	51,536
69	Hwy. 12 (N. of Brechin)—Capreol	6,659,719	1,527,685
69B	Parry Sound	76	—
70	Springmount—Hepworth	—	69,933
71	Fort Frances—Hwy. 17 (E. of Kenora)	1,461	397,193
72	Hwy. 17 (Dinorwic)—Sioux Lookout	338,536	164,916
73	Port Bruce—Dorchester	—	161,744
74	Hwy. 3 (New Sarum)—Nilestown	—	95,614
76	Hwy. 3 (Eagle)—Hwy. 2	630	81,169
77	Leamington—Hwy. 401 (N. of Comber)	139,634	79,090
78	Hwy. 21 (Dresden)—Wallaceburg	39,518	53,302
79	Hwy. 2 (Bothwell)—Hwy. 7	5,634	162,378
80	Hwy. 2 (S. of Glencoe)—Courtright	2,460	263,349
81	Delaware—Grand Bend	152,564	291,963
82	Hwy. 7 Jct.—Hwy. 21	892	31,550
83	Hwy. 23 (Russeldale)—Hwy. 21	18,937	191,487
84	Hensall—St. Joseph	228	80,444
85	Kitchener—Elmira	66,102	44,910
86	Guelph—Amberly	62,789	542,461
87	Harriston—Hwy. 86 (Bluevale)	58,458	156,448
88	Bradford—Hwy. 27 (Bond Head)	—	47,073
89	Hwy. 11—Hwy. 23 (E. of Palmerston)	34,444	597,986
90	Barrie—Angus	75,926	113,727
91	Stayner—Duntroon	—	38,870
92	Elmvale—Wasaga Beach	—	55,256
93	Hwy. 11 (E. of Barrie)—Waverley	—	186,733
94	Callander—Hwy. 17 (S. of North Bay)	—	38,208
95	Alexandria Point—Wolfe Island	15,876	44,730
96	Port Metcalf—W. End of Wolfe Is.	89,987	137,721
97	Hwy. 6 (Freelton)—Hickson	4,496	105,861
99	Dundas—Hwy. 24 (N. of Brantford)	46,250	180,318
100	Jct. Hwy. 401 to London	55,722	44,669
101	Quebec Border—Hwy. 17 (Wawa)	2,576,148	1,663,455
102	Thunder Bay—Sistonens Corners	—	120,959
105	Hwy. 17—Red Lake	1,551,765	462,148
106	Hwy. 28 (Dale)—Hwy. 2 (Welcome)	—	18,098
108	Hwy. 17—Hwy. 639 (Quirke Lake)	266,197	158,433
112	Hwy. 11—Hwy. 66 (Swastika)	21,892	103,479
115	Newcastle—Peterborough	36,199	238,623
117	Jct. Hwy. 11—Jct. 35	933,055	280,826
118	Hwy. 11—Hwy. 169	2,024,070	151,351
121	Hwy. 28—Hwy. 35 (S. of Fenelon Falls)	725,269	567,740
124	Sundridge—Parry Sound	105,655	339,841
125	Hwy. 105—Red Lake	—	33,739
126	Hwy. 401—Hwy. 2 (London)	436,705	48,730
127	Maynooth—Hwy. 60 (E. of Whitney)	—	144,438
129	Thessalon—Chapleau	92,858	808,792
130	Port Arthur—Hwy. 61	—	45,614
132	Renfrew—Hwy. 41	70,462	106,920

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
133	Hwy. 33 (Millhaven)—Hwy. 401	—	58,952
134	Jct. Hwy. 7—Jct. Hwy. 28 (Lakefield)	3,553	64,775
135	Hwy. 401—Hwy. 2 (London)	2,497	26,592
136	Hwy. 24—Orangeville	—	114,856
137	Hwy. 401—Thousand Island Bridge	—	25,112
138	Comwall—Monkland	478,913	192,391
140	Hwy. 3 (Port Colborne)—Hwy. 20	40,391	93,310
141	Hayes Corners Hwy. 69—Jct. Hwy. 11	28,951	196,047
144	Sudbury—Hwy. 101	1,645,641	1,165,525
169	Jct. Hwy. 12 to Jct. Hwy. 69	—	259,581
400	Toronto—Hwy. 12 (Coldwater)	6,030,576	2,451,815
401	(MCF) Quebec Border—Windsor	26,335,925	12,957,886
402	Hwy. 7—Blue Water	6,241,060	641,557
403	Burlington—Brantford	28,364,981	1,112,700
404	Toronto—Hwys. 7 & 12	6,709,098	341,940
405	QEW—International Br. (Queenston)	13,936	122,476
406	Hwys. 20—58—QEW	8,773,516	217,881
407	Jct. Hwy. 401 to Jct. Hwys. 35 & 115	8,602	—
409	Belfield Exway Hwy. 401—International Airport	58,411	351,997
410	Hwy. 401—Jct. Hwy. 7 & 10	62,218	162,851
416	Jct. Hwy. 2—Johnstown to Ottawa	367,921	—
417	Quebec Boundary—Ottawa	1,309,453	2,340,126
420	QEW—Rainbow Bridge (Niagara Falls)	47,732	72,483
427	QEW—Hwy. 401	1,667,246	803,207
451	(QEW) Toronto—Fort Erie	9,350,420	6,144,332
458	Ottawa Queensway	45,506	38,536
	TOTAL KING'S HIGHWAYS	228,331,504	99,982,465

SECONDARY HIGHWAYS

500	Hwy. 41 (Denbigh)—Bancroft	816,079	226,973
502	Dryden—Hwy. 17	17,452	476,313
503	Tory Hill—Kirkfield	1,080,047	571,164
504	Hwy. 620—Aspley	—	96,691
505	Hwy. 46—Uphill	—	80,969
506	Plevna—Hwy. 41	1,810,540	139,067
507	Hwy. 28 (Lakefield)—Hwy. 503	1,193,168	259,101
508	Burnstown—Black Donald Mines	21,484	129,263
509	Hwy. 7—Snow Road Station	12,534	203,318
510	Magnetawan—Hwy. 124	—	22,422
511	Brightside—Hwy. 508	913,309	180,813
512	Eganville—Hwy. 60	1,123,979	177,452
513	Hwy. 132—E. of Hyndford	—	60,824
514	Hwy. 500—Hwy. 515	—	50,271
515	Hwy. 512—Combermere	640	203,875
517	Twp. Road (near New Carlow)—Hwy. 62	—	98,025
518	Sand Lake—Hwy. 69	171,297	363,495
519	Hwy. 121—Redstone Lake	1,584,025	254,791
520	Burk's Falls—Ardberg	790,421	234,822
522	Hwy. 11—West of Loring	1,085,045	532,551
523	Lyell Twp. Line—Hwy. 60	252,725	117,505
524	Hwy. 522—Hwy. 534 (E. of Restoule)	—	50,942
526	Hwy. 69—W. of Britt	—	45,989
527	Jct. Hwys. 11 & 17 Northerly	1,556,725	984,834
528	Wolseley Bay—Hwy. 64	330,474	74,336
528A	Pine Cove Landing—Hwy. 528	1,513	26,985
529	Hwy. 69—Hwy. 69 (Magnetawan River)	—	102,454
529A	Hwy., 529—Bayfield Wharf	3,785	46,634
530	Hwy. 519—Hwy. 35 (Camarvon)	—	83,304
531	Bonfield—Hwy. 17	—	14,816
532	Hwy. 11 (S. of Bracebridge)—Hwy. 69	7,081	53,469

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
533	Mattawa—Hwy. 63	300	292,965
534	Powassan—Restoule	66,672	258,090
535	Hwy. 64—Riviere Veuve	14,224	293,280
537	Hwy. 69—Hwy. 17 (Wahnapiatae)	103,322	131,137
538	Algoma Miners Loop	—	29,008
539	Hwy. 64—Warren	258	227,246
539A	Hwy. 539—Tert. Road 805	—	28,038
540	Little Current—Meldrum Bay	219,263	650,661
540A	Hwy. 540—Barrie Island	—	46,869
540B	Manitoulin Island	34,092	17,719
542	Hwy. 68—Gore Bay	202,498	336,525
542A	Hwy. 542—Tehkummah	—	45,230
546	Hwy. 17—Mississagai Prov. Park	—	349,408
547	Hwy. 101—Hawk Jct.	—	20,381
548	Around St. Joseph Island—Hwy. 17	355,324	317,233
549	Lake Panache—Hwy. 17	106,344	57,903
550	Sault Ste Marie—Gross Cap	—	33,824
551	Province Bay—Hwy. 540	—	103,248
552	Hwy. 556—Twp. Road (E. of Hwy. 17)	8,997	66,547
553	Massey—Bull Lake Lodge	—	177,392
554	Hwy. 546—Hwy. 129	57,077	66,601
555	Magog Lake—Hwy. 557	—	45,855
556	Hwy. 17 (Heyden) N. Easterly	38,742	409,182
557	Blind River Northerly	—	88,873
558	Haileybury—Montreal River	—	137,198
559	Hwy. 69 Nobel—Hwy. 69	—	84,908
560	Hwy. 11—Hwy. 144 (S. of Gogama)	745,118	653,263
650A	Westree—Hwy. 560	—	38,205
561	Bruce Mines—Hwy. 638	1,918	76,729
562	Hwy. 11 (E. of Thornloe)—Hwy. 65	7,300	47,251
563	Batchawana—Hwy. 17	—	18,246
564	Blanche River Bridge—Hwy. 112	—	40,425
565	Pte Aux Pins—Hwy. 550	—	5,371
566	Matachenan—Ashley Mine	—	104,358
567	E. of Silver Centre—N. Cobalt	72,186	91,046
568	Hwy. 11—Kenogami	—	13,730
569	Hwy. 11—Hwy. 11 (S. of Englehart)	214,361	92,240
570	Sesekinoko—Hwy. 11	—	24,481
571	Hwy. 562—Earlton	1,631	14,462
572	Hwy. 11 Ramore—Hwy. 101	1,728	86,019
573	Charlton—Hwy. 11	—	158,925
574	Cochrane—Norembega	1,787	141,532
575	Jct. Hwy. 17—Jct. Hwy. 64	13,030	101,903
576	Hwy. 101—Kam-Kotia Mine	—	93,324
577	Hwy. 101—Iroquois Falls	3,265	153,359
578	Iroquois Falls—Hwy. 11	—	35,625
579	Cochrane—Gardiner	39,802	171,036
580	Hwy. 11—Lake Nipigon	—	41,286
581	Hwy. 11—Remi Lake	—	22,082
582	Hwy. 11 & 17—Loop at Hurkett	—	21,309
583	Mead—Lac Ste Therese	67,765	234,385
584	Hard Rock Mine—Nakina	159,858	227,532
585	Hwy. 11—Pine Portage	106,250	150,433
586	Hwy. 11—Lower Shebandown Lake	—	17,647
587	Silver Islet—Hwy. 11 & 17	—	247,664
588	Stanley—Round Lake Road	111,456	246,702
589	Hwys. 11A & 17A—Dog Lake Road	—	121,428
590	Hwy. 130—Hwy. 588 (Nolalu)	48,702	79,076
591	Hwy. 589 Northerly	268,049	86,305
592	Hwy. 11 (Norvar)—Hwy. 11	37,690	66,771
593	Hwy. 61—Hwy. 588 (Nolalu)	7,289	163,483
594	Dryden—Hwy. 17	3,867	89,150
595	Hwy. 597—Hwy. 590	5,550	170,752
596	Kenora—N. of Minaki	1,046,820	237,086

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
596A	Kenora	4,119	—
597	Pardee—Hwy. 608	75 CR	51,060
598	Hwy. 604—Hwy. 128 (N. of Kenora)	—	10,826
599	Ignace—Tert. Road 808	269,746	984,890
600	Hwy. 71—Rainy River	63,988	694,541
601	Hwy. 17—Dryden	595	143,333
602	Fort Frances—Emo	—	192,653
603	Hwy. 17—Dymont	—	11,834
604	Hwy. 17—Kenora Airport	16,400	22,156
605	Hwy. 17—Eton—Rugby	322,070	32,273
607	Hwy. 69—(Big Wood—Hwy. 64)	2,966	56,573
607A	French River—Hwy. 607	787	17,563
608	Hwy. 61—Hwy. 595 (S. Gillies)	20,115	64,121
609	Hwy. 105—Clay Lake	11,432	44,550
610	Hwy. 67—Hwy. 101 (Hoyle)	230,154	84,773
611	Hwy. 602 (Sherwood) Northerly	1,967	57,163
612	Hwy. 103 (Mactier)—Hwy. 69	20,814	16,075
613	Hwy. 602—Lake Despair	3,134	222,309
614	Hwy. 17—Manitouwadge	1,369,423	193,417
615	Hwy. 17—Burditt Lake	—	56,398
616	Hwy. 101—Palomar	—	11,650
617	Hwy. 11 (Stratton)—Hwy. 600	224,208	96,022
618	Red Lake—Madsen	2,016,975	42,728
619	Hwy. 11 (Pinewood)—Hwy. 621	—	144,088
620	Hwy. 62—Hwy. 28 (Apsley)	66,407	152,315
620A	Hwy. 28—Hwy. 620	—	1,876
621	Hwy. 11—Lake of the Woods	—	127,400
622	Hwy. 11 (Atikokan) Northerly	35,255	41,203
623	Hwy. 11—Sapawe	35,928	9,906
624	Hwy. 11—Larder Lake	—	111,065
625	Caramat—Hwy. 11	—	107,213
626	Jct. Hwy. 17 to Marathon	—	12,875
627	Heron Bay—Hwy. 17	2,248,426	27,919
628	Red Rock—Hwys. 11 & 17	—	23,639
629	Timmins—Timmins Airport	81,091	27,977
630	Kiosk—Hwy. 17	9,601	130,310
631	Hwy. 17—Hwy. 11	397,307	678,816
632	Hwy. 118—Rosseau	—	89,913
633	Hwy. 11—Kawene	—	19,978
634	Smooth Rock Falls—Eraserdale	1,121	320,283
635	Hwy. 17—Ottawa River Bridge	—	10,955
636	Hwy. 11—Frederick House	—	42,717
637	Hwy. 69—Killarney	541,082	343,491
638	Dunns Valley—Echo Bay	868,541	153,795
639	Hwy. 108—Hwy. 546	—	99,883
640	Hwy. 571—Earlton Airport Entrance	—	25,364
641	Hwy. 17—Pellatt	—	36,553
642	Hwy. 599—Sioux Lookout	—	192,612
643	Hwy. 584—Twp. Road to Cavell	—	65,261
644	Hwy. 69 (Pte. Au Baril) Westerly	500	44,409
645	Hwy. 529—Bng Inlet	—	46,166
646	Pickle Crow—Central Patricia	67,919	35,959
647	Hwy. 17—Blue Lake Prov. Park	—	21,149
648	Dyno Mine—West Jct. Hwy. 121	1,163	138,603
649	Bobcaygeon—Hwy. 121	—	74,780
650	O.N.R. Right-of-Way—Hwy. 12	—	27,003
651	Hwy. 101—Missanabie	—	192,949
652	Wade Lake—Hwy. 574	315,749	76,693
653	Portage Due Fonte Bridge Hwy. 17	—	82,689
654	Hwy. 11—Nipissing	—	97,395
655	Timmins—Ward Kidd Twp. Boundary	30,109	282,506
656	Hwy. 533 Northerly	—	15,944
657	Gold Pines—Hwy. 105	—	15,107
659	Hwy. 604—Hwy. 128	—	57,630

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
660	Bala—Hwy. 103	—	72,130
661	Gogama—Hwy. 144	—	13,862
663	Hwy. 11 (W. of Hearst) Northerly	6,387	22,167
664	Hudson—Hwy. 72	1,184	42,047
665	Hwy. 17—Richan	—	115,259
666	Kenora—Redditt	40,603	79,203
667	Hwy. 129—Sutton	180,678	134,503
	TOTAL SECONDARY HIGHWAYS	26,452,637	22,464,878

TERTIARY ROADS

801	Hwy. 11 —Namewanikan River	—	54,047
802	Hwy. 11 —Burchell Lake	—	48,878
803	Hwy. 575—(Hwy. 101 —3 mile south)	—	9,072
804	Hwy. 105 (Lower Manitou Falls)	—	28,316
805	Hwy. 539A (River Valley)—Pond Lake	—	99,544
808	Hwy. 646—Otosilwin River	—	287,665
809	Hwy. 564—End of Highway	—	9,775
810	Hwy. 553—Richie Falls	—	92,082
811	Tertiary Road 800 northwesterly	—	97,362
812	Manitou Road—Hwy. 11 northerly	10,479,870	—
813	Riding Stable Access Road	—	43,098
	TOTAL TERTIARY ROADS	10,479,870	769,839

ACCESS, INDUSTRIAL & ARTERIAL ROADS

708	Marchington Lake Road	1,864,704	7,748
709	Anaconda Road	—	16,992
751	Arterial Road—Jane St. S'ly to S. Queens Drive	6,014,894	—
758	N. of Hwy. 17 to Armstrong/Hurkett	—	86,645
760	Detour Lake Access Road	312,542	—
771	Kodak Access Road	1,241,364	—
778	Industrial Road—Hwy. 144 West to Sultan	—	30,606
784	Arterial Road—Lawrence Ave. S'ly to Tretheway Drive	5,988	—
785	Bending Lake Access Road	5,091,642	—
792	Hwy. 17—Dubreaulville Townsite	—	65,118
795	Sherman Mine Road	—	10,240
799	Caramat—Manitouwadje Road	—	60,292
	TOTAL ACCESS, INDUSTRIAL & ARTERIAL ROADS	14,531,134	277,641

UNINCORPORATED TOWNSHIPS

2	Indian Reserves	30,345	31,218
7	Special Settlers	1,277,724	109,624
9	Local Roads Boards	1,822,321	4,182,830
99	Statute Labour Boards	104,740	148,387
	TOTAL UNINCORPORATED TOWNSHIPS	3,235,130	4,472,059

SPECIAL PROGRAMS

450	Other Ferry Services	46,723	2,296,270
704	Welland Canal	4,047	—
731	Sudbury By-pass	50,585	—
735	Kitchener Waterloo Expressway	998,883	257,125
762	Welland Canal Tunnel	—	46,457
765	Townline Road Tunnel	—	19,946
797	Airstrip Development	4,087,221	1,609,215
952	Sidewalks	74,075	—
755	Commuter Rail	7,739	—

KING'S HIGHWAYS

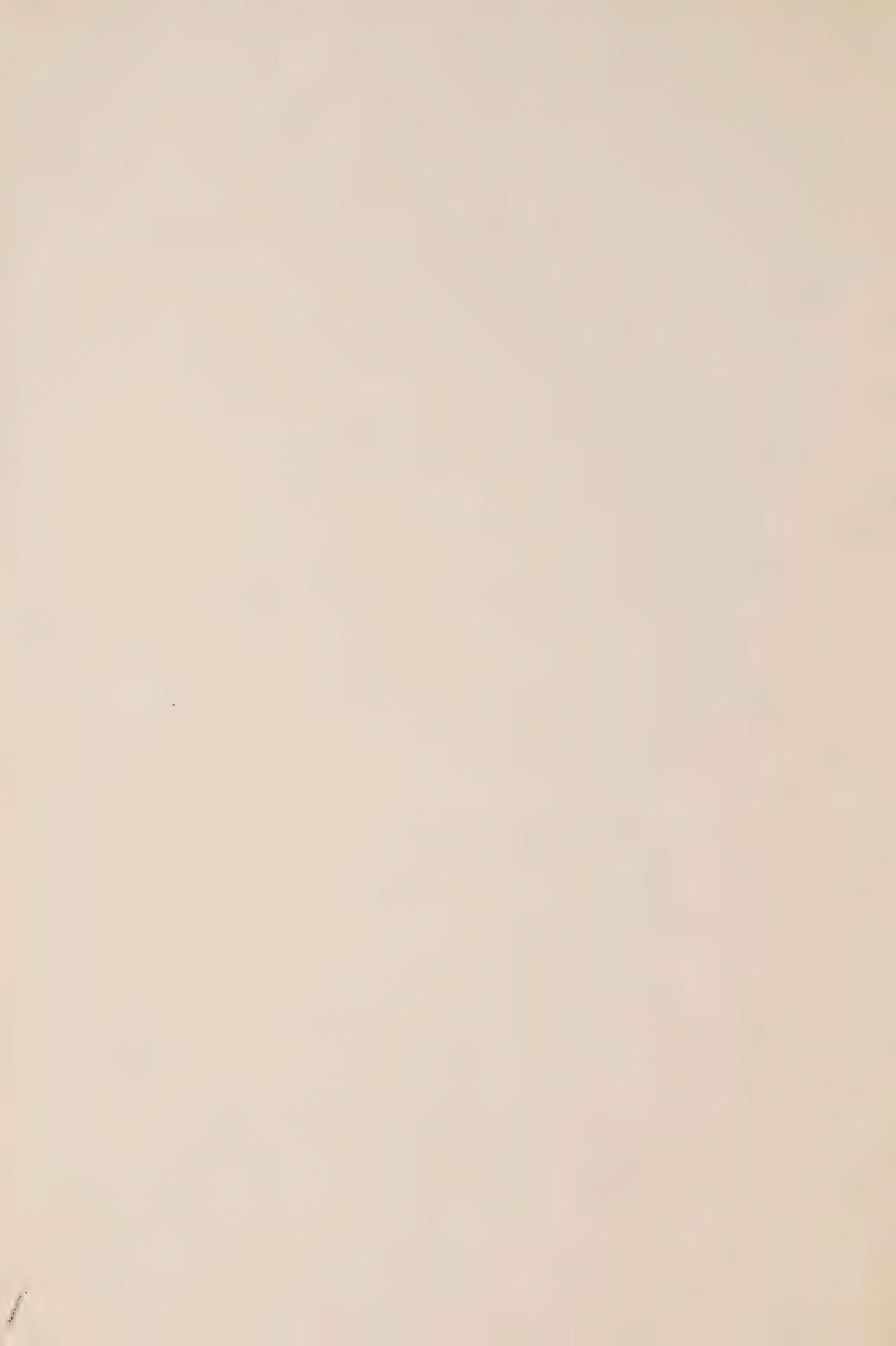
HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
7043	Hwy. 541 to Hwy. 541 (N. of Garson)	30,729	—
7087	E.C. Row Expressway	24,083,024	29,283
7118	Brantford Expressway	182,961	22,170
7154	Lakehead Expressway	42,738	—
7163	Township of Tisdale	38,736	—
7180	E. Metro Transportation Corridor	1,676,208	—
8905	Lands & Buildings	1,808,165	51,961
8954	Weigh Scales	25,833	—
	Development Roads	6,220,575	—
	Connecting Links	16,703,578	1,402,310
	TOTAL SPECAL PROGRAMS	56,081,820	5,734,737
HIGHWAY TOTALS		339,112,095	133,701,619
	Sundry Unallocated, District Office Administration, Engineering Buildings, Inventory Charges, etc.	75,774,111 CR	23,545,924
	TOTAL EXPENDITURE	263,337,984	157,247,543

Notes

MTC ANNUAL REPORT

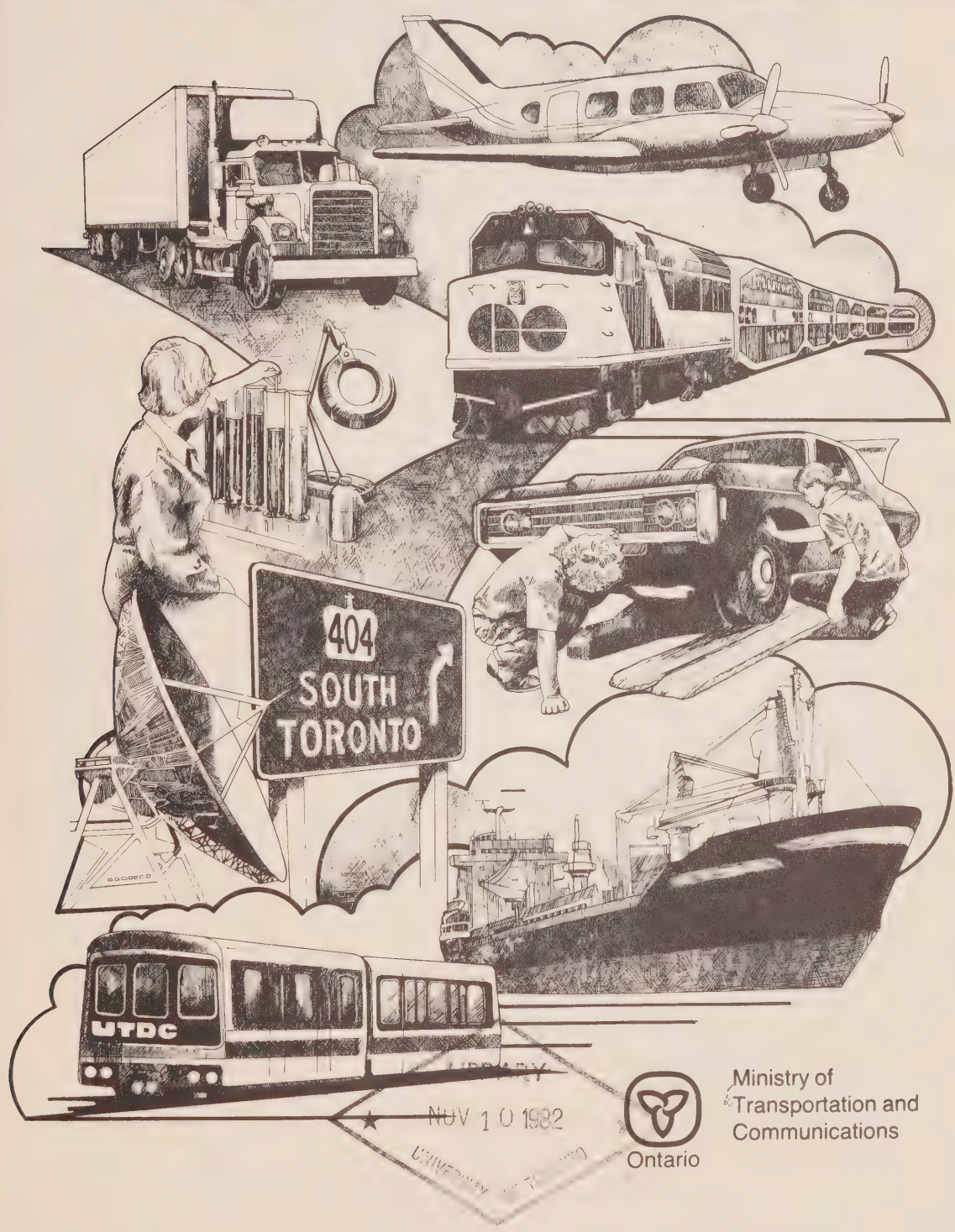
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Ministry of
Transportation and
Communications

Annual Report 1981-1982

for the
fiscal year
ending
March 31, 1982



Ontario

Ministry of
Transportation and
Communications

To: The Honourable John B. Aird,
O.C., Q.C., L.L.D.
Lieutenant-Governor of the Province of Ontario

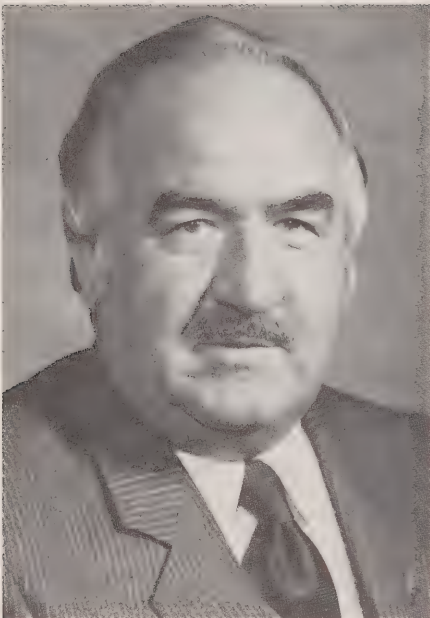
MAY IT PLEASE YOUR HONOUR:

The undersigned takes pleasure in laying before
you the Annual Report for the Ministry of
Transportation and Communications for the fiscal
year ending March 31, 1982.

Respectfully submitted,

A large, stylized handwritten signature in dark ink, appearing to read "James Snow". The signature is fluid and cursive, with a long, sweeping tail that extends to the right.

James Snow
Minister



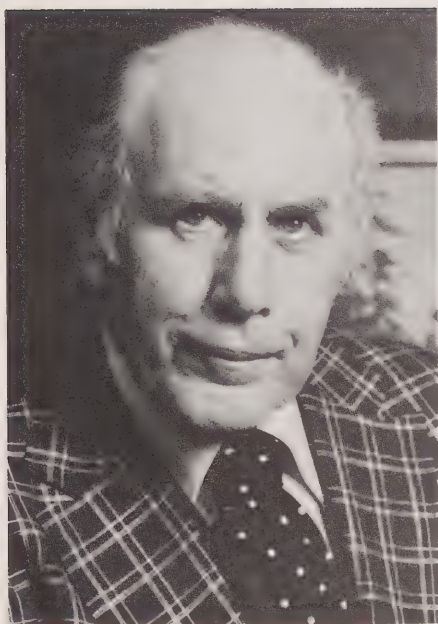
To: The Honourable James Snow
Minister of
Transportation and Communications

Sir:

I have the honour to present the report of the
activities of the Ministry of Transportation and
Communications for the fiscal year ending March
31, 1982.

Respectfully submitted,

Harold Gilbert



Harold Gilbert
Deputy Minister

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Deputy Minister's Summary



Grading on Highway 403 west of Toronto

MTC continued to provide adequate levels of transportation and communications services in the wake of a major economic downturn during the fiscal year.

A continuing injection of funds from the Board of Industrial Leadership and Development (BILD) helped to maintain, even push forward programs in a number of areas.

Highways

The highway program maintained a high profile in 1981-82 with an overall expenditure of \$490,500,000. And an additional \$237,000,000 was allocated to subsidize municipal provincial road construction.

In total, MTC constructed or rehabilitated some 741 km of the provincial highway system, primarily on two-lane highways. This work also included construction of 56 bridges. Work on multi-laned divided highways totalled 167 km.

Of the total highway expenditure, \$148,676,067 was spent on maintenance of the King's Highway network.

BILD funding spurred freeway arterial construction in southern Ontario's golden Horseshoe, including design work on proposed Highway 403, Brantford to Woodstock; award of

the first contract for work preliminary to twinning of the Burlington Bay Skyway, and work on Highway 406 at St. Catharines.

Two highlights included renaming of 100 km of Highway 17 between Thunder Bay and Nipigon, the Terry Fox Courage Highway, and . . . initial installation of a new interchange numbering system on Ontario freeways which matches the number of an interchange to kilometres travelled.

Transportation Programs

Public transit retained a high program profile during the year and MTC continued to provide transit subsidies to Ontario municipalities, totalling \$86,124,000 against operations and \$82,823,000 in capital assistance.

During the year, the province stated it would provide commuter rail service to the Bradford and Stouffville areas after federal authorities announced withdrawal of Via Rail Service on three rail corridors serving Metro Toronto. Work also continued on expansion of GO Transit rail service to Streetsville and Milton.

MTC introduced a capital subsidy rate of 90 per cent to encourage substitution of electric trolley buses for conventional diesel buses, in support of

Ontario's reduced energy consumption objectives.

Promotion of the computerized "Telerider" bus systems continued with demonstrations in Ottawa, Toronto, Kitchener and Guelph, providing for automatic telephone information on bus schedules.

Work continued, too, on the articulated bus demonstration program, with the first vehicle delivered to Mississauga Transit — one of 53 on order for various transit authorities.

In addition, several related initiatives were undertaken to improve transportation services for the physically disabled, including training guidelines for drivers of specialized vehicles, plus safety regulations for these vehicles. MTC's municipal transportation subsidy for the physically disabled totalled \$4,628,000.

Air services

MTC's air office carefully monitored the extent and quality of commercial passenger services offered in Ontario during the year, responding to 22 air carrier licence applications made to the Canadian Transport Commission (CTC).

One of the most significant responses to a policy issue was a reply made to Transport Canada on its "Proposed Domestic Air Carrier Policy."

Supplemented by \$5,000,000 in

BILD funds, subsidies were made available to some 44 municipalities in northern and southern Ontario for construction, operation and maintenance of municipal airports.

In northern Ontario, one remote airport was under construction during the year at Kasabonika. Eighteen remote airports have been built over the past 14 years.

MTC staff also assisted the Ministry of Health in implementing a system of medical emergency heliports at selected Ontario hospitals.

Marine Services

During 1981-82, MTC staff drafted the government's response to the Great Lakes/Seaway Task Force report for the minister. Subsequently, programs were initiated based on priorities identified in the report.

These included support for short term improvements on the Welland Canal; creation of an advisory council on marine issues; development of an Ontario ports policy; and a public awareness program for the seaway system.

In conjunction with the BILD program, MTC also announced a feasibility study subsidy to determine the need for harbour development in the vicinity of the Bruce Energy Centre.

Studies to determine requirements for improvements at Oshawa Harbour were underway, also as part of BILD, and negotiations with industry and federal authorities relating to assistance for Ontario shipyards took place.

Rail Services

MTC represented Ontario's interests in all rail-related activities, including tabling the final report of the Ontario Task Force on Provincial Rail Policy.

Staff was involved in passenger issues such as the North East Ontario Passenger Study, the Toronto-to-New York City passenger service, and investigation of implications arising from VIA Rail cutbacks.

MTC personnel also represented Ontario at CTC public hearings on abandonment of a number of branch lines. In addition, they completed the Mid-Western Ontario/Bruce Rationalization Study.

The possibility of building intermodal passenger terminals in the province was also investigated, with a pilot study initiated in Windsor.

Energy

MTC's energy conservation programs continued to play an

important role in overall ministry operations; and the Transportation Energy Management Program (TEMP) continued with a number of initiatives.

Research continued into the use of alternative fuels as replacements for petroleum-based fuels; and such alternatives as propane and compressed natural gas were promoted for industrial and private use. During the year, the minister accepted delivery of the first propane-powered car to roll off Ford's assembly line at Oakville.

Under the guidance of an advisory committee comprising members from the trucking industry, MTC's Trucksave program produced and distributed printed and a/v fuel conservation materials. DriveSave, aimed at the driving public, held fuel economy clinics in Kitchener and Toronto as well as producing information materials.

MTC staff continued to assist industry to establish van and car pool programs, while the ride-sharing concept was promoted in exhibitions around the province. As well, work continued to promote teleconferencing as an alternative to travel.

Trucks and Buses

A truck transportation office replaced the highway carrier co-ordination office, with responsibility for developing economic policies related to the trucking industry, transportation pricing, a small business consultative program, liaison with the industry and a newsletter.

A new bus transportation office was also established to develop programs, policies and legislation relating to intercity bus transportation. Staff acted as secretariat to the PCV Act Review Committee and liaison with other provincial and federal authorities.

Legislation and regulations affecting the truck and bus industry, included passage of an act dealing with transportation of "dangerous goods" and standards for load security tie-downs for trucks.

Regulatory changes in the Public Commercial Vehicles Act included removal of duplication of administrative

procedures for milk transporters; permission for PCV-licensed carriers to transport bulk fertilizer during the peak season; provision of flexibility for agents of the Wheat Producers Marketing Board in transporting wheat; and exemption of intercorporate trucking from provisions of the PCV Act.

By the end of the fiscal year, the PCV Act Review Committee had completed a seven-month overview of the trucking industry, while the Ontario Commission on Truck Safety set up in October, 1981, continued its investigations through a series of public meetings.

Highway Traffic Act

Amendments to The Highway Traffic Act included allowing either owners or drivers of unsafe vehicles to be charged; prohibited passing on the left shoulders of freeways; prohibited backing up on the roadway or shoulder of any highway divided by a median strip where speed was in excess of 80 km/h.

Amendments made to the regulations under the HTA provided for new safety regulations for vehicles used to transport the physically disabled; new tire standards for trucks, buses and cars; emergency parking on multi-laned highways; a probationary driver licence system; and changes to permit pickup trucks with campers to pay a "personal use" registration fee.

The Motorized Snow Vehicle Act was amended to require drivers to stop when approaching a school bus with flashing red lights, and raise the value of reportable accidents to \$400 from \$100.

Year end statistics showed another reduction in fatalities on Ontario highways and roads — from 1,508 in 1980 to 1,445 in 1981, representing a drop of 4.2 per cent.

The following is a summary of expenditures reported by the financial comptroller for the fiscal year, 1981-82, with comparative figures for the preceding year.

	Fiscal Year Ending	
	March 31, 1981	March 31, 1982
Ministry Administration	\$ 29,800,009	\$ 36,357,186
Planning, Research & Development . . .	11,731,838	12,607,880
Safety & Regulation	45,769,268	53,238,593
Provincial Roads	494,295,700	499,448,732
Provincial Transit	66,158,312	81,473,563
Air	4,475,193	4,829,264
Municipal Roads	424,164,066	455,527,976
Municipal Transit	133,768,777	176,867,014
Communications	2,163,206	2,353,816
Total Gross Expenditure	\$1,212,326,369	\$1,322,704,024

Deputy Minister's Office



Demonstration of laser communications technology

Communications Division

The Communications Division represented the interests of Ontario consumers in telecommunications services while ensuring the full development of telecommunications manufacturing and supply industries. Included in the range of telecommunications services were the mass media of radio, broadcast and cable TV; the common carriers of telecommunications, including residential and business telephone; message; facsimile; telex; private teleprinter services and data communications.

Activities undertaken during the fiscal year included:

- Participated in the Ontario Government's Task Force on Microelectronics with particular responsibility for determining the societal impact of microelectronics.
- Represented the needs of Ontario users — both residential and business — and the telecommunications manufacturing and supply services, before the Canadian Radio-television and Telecommunications Commission (CRTC) on several major issues by intervening in hearings on:
 - application by Bell Canada for an increase in rates;
 - liberalization of terminal attachment, based on its potential to improve consumer choice, encourage innovation by

the equipment manufacturing industry and to increase healthy competition within the supply industry.

— Representations were made to the CRTC concerning:

- Canadian content, advancing an incentive-based approach for regulating broadcasters.
- CRTC's decision respecting elimination of restrictions on the marketing of satellite services directly by Telesat and its impact on the Trans Canada Telephone System. The ability of Telesat to directly market its services to end users will increase usage and lead to more innovative applications of satellite technology in Canada.
- Implementation of Phase I of the CRTC extension of service decision, which will benefit Ontario consumers by providing additional broadcast services to underserved communities.
- Radio broadcasting, proposing modifications designed to:
 - encourage AM radio broadcasters to experiment with new technologies;
 - introduce additional positive incentives to ensure Canadian content;
 - eliminate foreground pro-

gramming requirements on FM, and,

- allow cable systems greater freedom to exploit the potential of their technology to deliver enhanced services.

— Ontario's interests were directly placed before the federal government in the matter of:

- private microwave licensing policies, setting out objectives designed to ensure universal access to basic telecommunications services, provide innovative cost efficient services, ensure the efficient allocation and assignment of spectrum and ensure equity in access to spectrum resources;
- pay TV, to increase the choice and diversity of services and Canadian programs available to consumers and provide new sources of revenues and opportunities for investment in Canadian programs. Pay TV has the potential to stimulate the Canadian software and program production industry and strengthen its international competitiveness;
- earth station licensing policy, which continues to be a key to maximizing the availability of, and consumer access to, diverse

and cost-efficient communications services through satellite technology.

- Ontario presented its argument to the Restrictive Trade Practices Commission concerning the critical issue of whether vertical integration should be allowed in major Canadian telecommunications industries; which Ontario believes improves the competitive environment for telecommunications equipment manufacturers.
- Participated in a major federal review of cultural policy in Canada (Applebaum-Hebert Committee), provided the opportunity of presenting cultural issues that arise in the context of communications policies, including the need to strengthen the Canadian program production industry and to address Canadian content regulations.
- A cable policy paper was formulated to establish a framework for the potential provincial regulation of cable distribution systems operating in Ontario; close liaison was continued with the cable industry and its support for Ontario's position has been very encouraging.
- Participated in the federal-provincial Conference of Ministers of Communications, held in September in Winnipeg, and in associated federal-provincial working groups, including the federal-provincial task force on joint regulatory mechanisms, and bilateral negotiations at the deputy minister level concerning pay TV.
- Continued to promote the use of teleconferencing both within government and the private sector as a means of reducing energy consumption; two ministries, two private industries and an educational institution adopted the teleconferencing approach as a means of saving energy and travel dollars.
- Conducted, together with CN/CP Telecommunications, a successful demonstration of laser technology by transmitting information between Ottawa, the CN Tower and Queen's Park. Laser technology is viewed as a potential valuable tool in highway traffic management and control systems, and for short-haul communications applications.
- Provided technical assistance in the design and assessment of fibre optic communications system for traffic management application, of increasing significance as congestion increased on highways.
- Participated in the direct broadcast satellite project, together with the Ministry of Northern Affairs, the Ministry of Culture and Recreation/

Management Improvement Branch

Economic, technological and societal changes affect MTC's ability to provide service. Varying impacts of these changes require management to be flexible and capable of adapting to the new conditions. Branch staff supports the Deputy Minister and his management team in their endeavours to plan, direct and delivery ministry programs to the citizens of the province.

In this support role to the senior executives, branch efforts are directed to identify, recommend, promote and encourage improvements in such diverse areas as: organizational performance; resource utilization; operational effectiveness; systems utilization/application; policy issues.

Specific Projects

- Co-ordination of the implementation of performance budgeting was continued during the year; improvements in reporting activities incorporated and utilization enhanced;
- Municipal Roads office functions were analyzed at head office, regional and district levels. Opportunities to strengthen, streamline and update operations identified and line implementation of recommendations initiated;
- The branch co-ordinated a review of licensing and control branch operations relative to relocation of production operations to Kingston. Results are being used to plan the restructuring and allocation of resources between the Downsview and Kingston locations;
- Automated information systems development services were examined by a task force directed by staff, including executive concerns, user relations, workload, planning, technological change, training and organizational responsibilities. Insights to similar operations in other organizations were obtained from three other Ontario ministries, and

three major private sector corporations. A management consulting firm was utilized to assist the task force to pinpoint major issues and make recommendations. Implementation of action plans will promote automation of manual processes, enhance systems development, methodology and improve ministry productivity and efficiency;

- As a result of an Ontario Government initiative concerning audit practices, staff began a study of the Internal Audit Branch. Audit practice insights were obtained from other Ontario ministries, a major crown corporation and federal government and audit associations. Adoption of comprehensive auditing, strengthening computer systems audits, and transfers of certain responsibilities to line units have been included in this important study;
- At the request of the Deputy Minister, the branch undertook a broad review of human resource services. A task force, strongly supported by personnel branch staff, conducted a comprehensive questionnaire survey of all MTC management personnel concerning human resource services issues. Contemporary human resources literature was researched, and several external public and private organizations visited. Recommendations have been presented to the ministry's strategic policy committee for consideration.
- Other branch assignments included several organizational studies at head office and the regions. Committee activity by ministry personnel was catalogued, classified and presented to executive management. Operational studies, conducted in conjunction with regional personnel, were started in the areas of purchasing a supply and planning & design.

TVOntario and the federal Department of Communications to provide telecommunications service to 46 locations in northern Ontario.

- Representation continued in the government/industry committee (TAPAC) related to terminal attachment interface standards, important from a long-range

perspective as it relates to manufacturing standards and protection of the network infrastructure.

- Increased emphasis was placed on improving discussion between government, industry and consumers through participation in several public forums.



Scenic Highway 35 near Miners Bay

Highway Program Development Branch

Personnel was responsible for program planning, development, priority setting, expenditure control, monitoring and program evaluation for both the construction and maintenance elements of the Provincial Highway Program.

The Branch has two functional units
— highway program planning office and highway program administration.

Highway Program Planning Office

Highway program planning office staff, with supporting sections, plans and co-ordinates future development of the provincial highway program. Functions include annual long-range planning; development of program/

sub-program/activity priorities; development of system policy; co-ordination and synthesis of highway planning information; and evaluation of program performance and effectiveness.

Through its manager as co-ordinator of the provincial highways program, the office also provided significant staff support to the assistant deputy minister, Provincial Highways, and the Provincial highways program planning committee.

Long-range planning (LRP) involved analysis issues and demands, so products and services can be properly matched to future requirements. Specifically, the long-range planning process involved a calculated speculation of future program issues, financial outlooks and system needs to determine the program future emphasis.

Last year, the LRP concentrated on the rationalization of program/sub-program objectives, program/activity structure, program options and marketing information. Work was also carried out to review the LRP process to make it effective in providing corporate direction to operational units responsible for program delivery.

Program evaluation assessed the effectiveness of the products and services in terms of measurable public benefits. It provided information on the relative significance of various sub-programs as well as monitoring results through MBR reporting. While MBR is now an established activity in the program, the development of a program evaluation framework and expertise building were the main activities.

Program priority planning carried out analysis and development of broad

Strategic Policy Secretariat

Secretariat staff supports the minister, deputy minister and the Strategic Policy Committee (SPC) in the management of the committee's ongoing business and the development and implementation of improvements to the strategic planning and management process.

During the past year the secretariat has:

- Managed the business of the SPC, the ministry's senior executive committee;
- Maintained liaison with the central agencies of government and other ministries on behalf of the policy committee;
- Co-ordinated the preparation and presentation of outlooks and futures papers by ministry staff to the SPC as the preliminary step in the strategic planning process;
- Organized and managed strategic policy development and planning process, specifically, the establishment of the format content and publication of the ministry's strategic planning guidelines, 1983-1988;
- Assisted the program and resources planning committees in the continuing task of producing long range plans to further implementation of the strategic planning process;
- Co-ordinated ministry responses to briefs and submissions received from associations and the public and to requests for policy-related information from government sources;
- Represented the ministry in the government's exploration of possible freedom of information legislation;
- Assisted in the briefing and escorting of delegations of senior international executives concerned with transportation and communications;
- Organized special meetings between the SPC and outside experts on subjects of particular interest to the ministry; and
- Participated in a government-wide effort, co-ordinated by Management Board Secretariat, to document and display management processes and tools as part of the management standards project.



New Highway 403 Interchange at Ford Drive and QEW

sub-program priorities to obtain the most public benefits for the overall provincial highway program. Priority analysis determined funding to be allocated to each sub-program and activity and identified priority on system improvements and changes to be carried out in each year.

System policy planning staff developed policies and strategies, ensuring the provision of equitable and adequate services on the highway system. The extent and location of system improvements, impacts of level of service changes and variations in quality and quantity standards were analyzed to guide program management decisions.

Information systems function collected, processed and synthesized information to support the overall planning and management of the provincial highways program. In addition to providing significant technical data and other information for internal use, specific information was prepared for use by the public. "Highway Distance Table" and "Traffic Volumes: King's Highway and Secondary Highways" are examples of such widely used information.

Highway Program Administration Office

Highway program administration office staff with supporting sections, carried out overall provincial highway administration including program budget control, operational planning, multi-year workplanning and project control.

Personnel co-ordinated the budgeting process through central allocation of funds between

organizational units. In-year expenditures, which in 1981-82 were approximately \$510,000,000 were monitored on a continuous basis and reported periodically to senior management.

Through this monitoring and interaction with the ministry's regional organizations, appropriate in-year budget and expenditures adjustments were carried out in response to constraints or initiatives such as the additional funding made available through the Government's Board of Industrial Leadership and Development (BILD).

Using the critical path method (CPM), a number of major highway developments (i.e. QEW at Burlington Bay Crossing) were broken down into individual projects suitable for contract award, at the same time affording maximum public use of available facilities at least overall cost.

CPM construction schedules were developed on approximately 30 individual projects, and provided to contractors as information at the time of tendering. Forty-eight projects were monitored using CPM construction schedules, providing up-to-date information, for use in the management of the ministry's construction budget.

The computerized construction resources evaluation package (CREP) was implemented in all regions and head office relating to construction staffing requirements. The expenditure forecast system (X-FOR) continued to provide a calendarized expenditure flow profile on approximately 1,300 projects, valued at \$1.5 billion dollars in the multi-year program.

In order to provide management

with the best information possible, relating to the provincial highways program, a number of computer systems were initiated. A more sophisticated expenditures program, program expenditure analysis system (PEAS), will update the current X-FOR system.

The pre-contract engineering project status (PEPS) will update the current method of monitoring the pre-engineering process. The cost of project summary (COPS) system will monitor more accurately the value of a project. In addition, a system will continue to be developed to monitor consultants expenditure within the program.

During the past year, an operational planning and control section was established to develop and implement additional and improved management capabilities and budgeting processes for the entire highways program. These additional requirements were deemed essential for the continued provision of optimum highway service within an increasingly constrained financial environment.

An operational management process was initiated to provide fiscal and human resource-oriented operational guidelines and annual work plan targets for each of the administration, design, construction and maintenance elements. Annual work plans for each of the organizational units will be developed on the basis of this process which will also provide up-to-date information for in-year evaluation and management of activities. To date, an overall framework for an operational management process has been developed and is now being implemented in stages.



MTC's annual display at the C.N.E.

Public & Safety Information Branch

Public and Safety Information staff were responsible for the Ministry's internal and external communications programs, including liaison with the news media.

More than 6,000,000 pieces of safety-related information materials were produced and delivered as requested during the fiscal year, including brochures, booklets and periodicals such as the Driver's Handbook, the Ontario Traffic Safety Bulletin, MTC News and safety curriculum materials for all Ontario public and separate schools.

Over the past 12 months, staff answered over 123,000 telephone requests for up-to-date road information; responded to 125,000 requests for general information and replied by mail to another 1,540 information queries.

Personnel also produced in-house radio and TV commercials, A/V scripts; and display advertising for newspapers and magazines to publicize MTC's programs.

Production of informational traffic safety films by A/V staff continued with completion of a film to promote child restraints: "Life is Precious."

Another film, tentatively titled "The Drivesave Zone" and under production, was designed for high school driver education as well as general public release. Staff also produced MTC's annual "Ontario on the Move" film.

The A/V unit produced 41,000 black-and-white photographs, 50,000 slides and 11 film strips written for the training of MTC staff.

Ninety-six speeches and statements for the minister, deputy minister and other MTC senior staff were researched and drafted. Production of news releases — both general and contract awards — totalled 370.

Other branch responsibilities included official functions and opening ceremonies such as the "Terry Fox Courage Highway" ceremony at Thunder Bay; various displays, including MTC's annual CNE show; and the updating of the "Safety Caravan" sent to fall fairs, winter carnivals and like events.

Affirmative Action Program

The Affirmative Action Program was designed to remove barriers to equality for women employed within the ministry, attempting to overcome past and present discrimination and generally improve their overall status.

Staff acts as a means of providing training, education and support systems for women of all levels.

The office has undertaken several initiatives to assist women and managers in implementing mutually beneficial activities. For example, plans are developed by MTC managers to outline affirmative action commitments for a specified period of time.

Likewise, women at MTC participate in career development interviews which gives them more directed career goals and plans.

Additional activities implemented during the past fiscal year are highlighted below:

- sponsorship of two affirmative action conferences for approximately 60 unit representatives and council members;
- continued co-ordination of a summer student program designed to assist women in office and clerical services positions;
- initiation of 65 short-term developmental training assignments under the accelerated career development program;
- monitoring of 17 job competitions;
- evaluation of representation in various classifications, with targets developed for under-represented areas;
- co-ordination of council and unit representative activities;
- dissemination of information pertinent to women employees.

Provincial/Municipal Transportation



MTC subsidizes municipal airports throughout Ontario

Transportation Programs Division

Transportation programs division staff provided the focal points for the five major travel modes represented by the division's five offices; namely, transit, municipal roads, air, rail and marine and pipeline.

Personnel in each office was responsible for their own planning and participating in intermodal matters affecting their particular areas. They also implement policies and carried out specific modal projects as well as administering the several financial subsidy programs.

In general, the division's responsibility was to identify Ontario's public interest in each mode, then determine the best courses of action to achieve overall provincial transportation goals.

Where federal jurisdiction was involved, staff presented the provincial position and worked to obtain desired federal participation or policies. This necessitated staff representation before federal regulatory bodies to ensure the provincial viewpoint was included.

Construction. The office offered guidance to municipalities on the planning, design, and operation of their airports and entered into agreements with them for requested subsidies towards development projects and maintenance expenditures.

Construction and maintenance of MTC airports in remote northern areas of Ontario is the responsibility of the ministry's N.W. Region. Air office responsibilities in this program were the development of policy and standards, preparation of multi-year programs, and monitoring of current programs. The system now includes 18 operating airports. One additional airport was under construction. Capital funding, as for the highway system in northern Ontario, was through MNA.

Special policy issues addressed during the past year, were: the air navigation system in northern Ontario; division of program responsibilities between the Federal and Provincial Governments; and others.

Also, revised edition of the Ontario Airport Facilities Map was printed in 1981 and distributed widely to aviation organizations, commercial carriers, and private pilots.

A new responsibility assumed by the office during the past year, at the request of the Ministry of Health, was to assist in the implementation of a system of medical emergency heliports at many hospitals. Actual construction of each heliport was a responsibility of the hospital authority. The Air Office developed standards and provided assistance and guidance relative to site selections and licensing procedures.

Air Office

Air office staff had broad responsibilities for policy and program development in connection with MTC's overall interest in aviation in Ontario. The office maintained liaison with airport operators; commercial air carriers and other interest groups; and with Transport Canada, which is responsible for the licensing and regulation of all aviation activities.

A major function was monitoring the extent and quality of commercial passenger services offered to Ontario municipalities. This involved, in part, an assessment of reach application submitted to the Canadian Transportation Commission (CTC) for new or revised licences for the provision of such services.

In the fiscal year 1981/82, the office responded to 22 specific licence applications and policy issues. The most significant was a reply to Transport Canada on its draft "Proposed

Domestic Air Carrier Policy." The Provincial position was presented both to the Ministry of Transport and, subsequently, the standing committee on transport in Ottawa.

Staff were no longer responsible for direct monitoring of the norOntair service (as this is a function of the Ministry of Northern Affairs and the Ontario Northland Transportation Commission); but did provide input into a policy planning study commissioned by MNA, aimed at identifying future norOntair personnel management and operating strategies.

On the program side, personnel developed policies leading to expansion of the municipal airport program to cover the entire geographical area of the province. The subsidy program, supplemented by funds made available through BILD, was made available to 48 municipalities, 44 of whom either had airports in operation or under con-



Prototype of a new articulated streetcar

Transit Office

Transit Office staff was responsible for transit program policy development and evaluation, administration of municipal transit financial assistance programs, development and management of operational improvement and demonstration projects, and carrying out or assisting in planning for municipal and provincial transit system improvements.

In 1981, a total of 66 municipal transit systems received financial assistance in accordance with policy, a policy providing subsidy to cover 50 per cent of the theoretical net cost calculated on the basis of a target revenue/cost (R/C) ratio established for each municipality.

Also an additional subsidy up to a limiting amount was provided to those municipalities falling short of their target R/C ratio.

Municipalities experiencing an above normal population growth also received additional assistance. As well, municipalities introducing a new major facility were eligible to receive a special subsidy for the initial years of operation.

Agreements were developed for such undertakings on an individual basis, incorporating municipal initiatives with respect to co-ordinated land use and transportation policies while detailing the appropriate operating subsidy terms.

Capital funds were also provided to municipalities at the rate of 75 per cent of expenditures.

A program to provide subsidy

assistance to municipalities for the provision of transportation for physically disabled persons began in July 1979. The amount of subsidy was based on 50 per cent of capital and operating expenditures.

The provision of financial and technical assistance to municipalities undertaking transit studies was continued. Operational studies of existing and potentially new transit services took place in London, Barrie, Kingston, the Township of Kingston and Sandwich West, Oakville, Timmins and Orillia. In London, the transit review was part of a major urban transportation study scheduled for completion in '82.

Several related initiatives were undertaken to improve transportation services for physically disabled persons, including the development and publication of training guidelines for drivers of specialized services and the implementation of an interim safety regulation for vehicles transporting physically disabled passengers.

Also introduced in 1981 was the mandating of reciprocity enabling registered users in one municipality to arrange for service in other municipalities.

With respect to provincial transit, work was completed on the rationalization and expansion of GO Transit services in the Toronto Region. With the announcement by the Federal Government that three rail passenger corridors serving Metro Toronto would be abandoned in the early fall of 1982,

pressure was placed on the province to provide replacement rail service.

In response, the province announced commuter GO rail service would be provided to the Bradford and Stouffville areas.

In support of provincial energy objectives, an increased capital subsidy rate (90 per cent) was introduced to encourage the substitution of conventional diesel buses with electric trolley buses. Also, in co-operation with the Ontario Urban Transit Association (OUTA), a comparison of the operating characteristics of trolley and diesel bus fleets was undertaken.

The development of an OUTA fact book was completed and the first public edition summarizing 1981 information was slated for distribution in mid-1982.

The demonstration and implementation of passenger information systems continued to be promoted by staff. These computer-based systems provided automatic telephone information re scheduled bus arrival times, and proved to benefit transit users, resulting in increased ridership. Demonstration systems were installed in Ottawa, Toronto and Kitchener — the latter being a shared operation with Waterloo, Brantford and Guelph.

Work continued on the articulated bus demonstration program during 1981 to culminate with the delivery of 53 coaches to Mississauga, Ottawa, Hamilton and Toronto by the fall of 1982, where operational testing will be carried out for three years.

A project to demonstrate the operational benefits associated with the concept of honour fares in Ottawa was initiated in 1981, with in-service testing and evaluation on both standard and articulated buses planned for late 1982.



Vessel about to enter Welland Canal

Marine & Pipeline Office

The office has been operating in the transportation program division since early 1981 when the Great Lakes/Seaway Task Force activity was completed and the report published.

One of the staff's first priorities was to review the task force report recommendations and submit to senior ministry management and, then to cabinet, the proposed government response. This activity was completed. The minister announced in December the priorities selected from the report and outlined the activities which would result.

The major elements of the cabinet direction included:

- Ontario's support for short-term capacity improvements on the Welland Canal and liaison with the federal government to determine the timetable planned for these improvements;
- Development of an Ontario position on extension of the navigation season;
- Creation of an advisory council to assist in creating Ontario positions on various marine issues;
- Creation of a public awareness program;
- Development of a commercial promotion program for the Great Lakes/Seaway System, and,
- Creation of an Ontario ports policy.

Specific responses to each of these directions were initiated and detailed programs are being developed.

Close liaison was established with the various areas of the federal government with jurisdiction over the Great Lakes/Seaway System and its components.

Co-ordination of implementation for the marine oriented Board of Industrial

Leadership and Development (BILD) also continued, and included:

- Negotiations with industry and the federal government about assistance to Ontario shipyards;
- Announcement of a feasibility study

Rail Office

The rail office is responsible for representing Ontario's interests in all rail-related activities, as well as promoting and assisting the development of a suitable provincial rail transportation system.

Two important milestones took place:

the tabling in the legislature in April, 1981, of the final report of the Ontario Task Force on Provincial Rail Policy and July 27th federal government announcement of a 20 per cent cutback in VIA Rail's passenger services across Canada.

Office staff were also involved in a number of ongoing programs, including — branch lines, passenger services, regulatory activities, electrification, stations, intermodal developments and safety issues.

Staff represented the provincial government at CTC public hearings studying the potential abandonment of a number of branch lines. The year also saw completion of the Mid-Western Ontario/Bruce Rail Rationalization Study, expected to lead to a more rational and efficient rail network.

One finding of the Bruce Study was that certain abandoned rights-of-way should be retained to facilitate the introduction of rail service if it should be warranted at a future date. Thus, policy

to determine the need for harbour facilities for the Bruce Energy Centre. The study will be jointly financed by the federal government with BILD paying for Ontario's share, and,

- Studies to assist in determining the requirements for improvements at Oshawa harbour which were underway — with some resolution expected later in 1982.

was initiated on possible acquisition and/or banking of selected abandoned rights-of-way.

Staff was also involved in such passenger issues as the North East Ontario Passenger Study, the Toronto to New York City passenger service, and investigation of the implications of the VIA Rail cutbacks implemented in November, particularly with respect to the impact of the residents of Northern Ontario.

Passenger services provided by GO Transit and VIA Rail in the Toronto area were reviewed because of Federal Government's decision to remove the Ottawa subsidy for the Toronto-Stouffville/Barrie/Havelock passenger lines.

As a result of the recommendations of the rail policy task force, staff also initiated a rail master plan, and studied in co-operation with GO Transit, the electrification of a portion of GO's Lakeshore line.

A consultant was retained to conduct the planning and design of this project. And personnel represented the province in a federal government electrification committee studying the national requirements for rail electrification.

Ontario was successful in its intervention before the CTC in having the Minaki station building retained and arrangements begun with the Ministry of



The Ministry strongly supports public transit

Northern Affairs, VIA Rail and CN Rail to refurbish it.

Staff also investigated the possibility of building intermodal passenger terminals in the province, with a pilot study now underway in Windsor.

Rail office staff continued to monitor all activities related to rail safety. An outcome of the Mississauga railway accident inquiry was a "show cause

hearing on railway safety" (the transportation of dangerous commodities by rail), in which the staff played an influencing role.

As in the previous year, MTC continued to be involved in regulatory matters, many relating to railway regulation and administration, as well as long-term projects requiring continuous monitoring and action.

These included: Review of railway costing order R-6313; uniform classification of accounts; cost of capital study; rate arbitration process; CTC jurisdiction over private sidings; statutory limit of railway liability; registry of non-railway owned rail cars; rail safety issues-transportation of dangerous goods and railroad crossings.

Municipal Roads Office

Municipal roads office staff were responsible for program planning, policy development and evaluation, and the overall administration for all municipal road subsidy programs.

Municipal Roads Programs

During the 1981-82 fiscal year, road grants were provided to 838 municipalities and 45 Indian reserves under the Public Transportation and Highway Improvement Act.

Under special agreement, funds were provided to the regions of

Durham and Waterloo, and city of Brantford for the development implementation of computerized traffic signal systems designed to improve traffic flow in support of the province's energy conservation program. In addition, 39 municipalities received subsidy for the installation of traffic signals.

Under the terms of a new agreement, funds were provided for the operation of the Amherst Island ferry service.

The distribution of funds are shown below:

Highway Connecting Link Program

There are 918 km of municipal roads covered by connecting link agreements. MTC funded 119 agreements with a total expenditure of \$14,687,000. An additional \$1,614,900 was spent on maintenance activities in towns, villages and townships.

Development Road Program

Development road work represents municipal projects which would ordinarily place a financial burden on municipalities. MTC subsidizes these projects under agreements with each municipality up to 100 per cent of the total cost.

These roads remain under the jurisdiction of municipalities with work done either on a day labour basis or by contract. There were 53 projects during the year involving an MTC expenditure of \$7,473,300.

Unincorporated Areas

The Ministry contributed \$3,990,200 for maintenance and \$2,137,600 on road and bridge improvements involving over 100 projects in unincorporated areas. During the year there were 22 statute labour board, 223 local road boards, 30 Indian reserves and 121 other groups which expended funds on roads in these areas.

Area	Total Kilometres of Road	Approved Expenditures	Subsidy Paid
Metro Toronto	721.3	40,920,712.82	19,750,000.00
Regions	6,809.6	119,738,737.99	69,948,013.68
Counties	12,566.6	85,543,073.01	57,144,340.13
Townships (including Indian reserves)	75,010.3	165,259,068.25	94,158,780.85
Urban Municipalities (including Boroughs)	33,973.1	371,572,493.97	175,904,888.22
Traffic Signals		5,346,413.80	2,526,331.80
Computer Systems		1,247,942.70	476,978.54
Amherst Island Ferry		481,283.42	450,000.00
Total	129,081.3	790,109,725.96	420,359,333.22

The Policy Planning and Research Division

Division staff acts as a resource pool for the ministry, providing specialized staff and facilities to help solve operational problems, identify and pursue opportunities in the research and policy fields.

During the year, the division consisted of two major branches — research and development, plus policy planning — and two offices which reported directly to the executive director — social and policy research and the Transportation Energy Management Program (TEMP). It was also responsible for liaison with the Urban Transportation Development Corporation.

Staff was active in co-operative activities with other ministries, municipal authorities, provincial agencies, the federal government, especially Transport Canada.

Personnel also exchanged information at the national and international level, contributing and receiving technical expertise through agencies such as the Roads and Transportation Association of Canada, Transportation Research Board and Organization for Economic Co-operation and Development.

Municipal and Intercity

Staff held regular meetings with the Municipal Transportation Energy Advisory Committee (MTEAC) for discussion and to present results of several computer controlled traffic signal demonstrations. Information on energy conservation was also distributed to 3,000 municipal officials via the MTEAC newsletter, issued quarterly.

In other work, four chapters of the Transportation Energy Analysis Manual (TEAM) were completed and presented to special seminars. Further seminars will be held as successive chapters become available.

Other energy conservation studies completed included alternative work schedules, traffic measures to reduce energy consumption, and preferential treatment for high occupancy vehicles.

Policy Planning Branch

During the year, the branch reorganized to provide staff support to senior management, program areas, and to develop corporate policy related to Government/MTC goals, multi-modal issues and anticipated change in external environment. Five new offices were set up as a result.

Corporate Policy Co-ordination

This office worked to define the needs of senior management and

develop appropriate policy options and program activities.

Goods Distribution Systems Program

The first step were taken to establish this office as a centre of information and expertise for the freight industry with the purpose of identifying and pursuing opportunities for improved economy and productivity.

Urban Transportation Program

This office worked to develop a broad overview of current trends and issues to ensure up-to-date policy responses and initiatives. It provided staff support to the Toronto Area Liaison Committee and evaluated major transportation initiatives.

The Research & Development Branch

R&D branch staff conducted physical research to improve the safety, economy and energy efficiency of transportation and communications in Ontario. Most was done in-house, using existing personnel and facilities; but about 40 per cent was assigned to consulting firms in the private sector and universities under the Ontario Joint Transportation and Communications Research Program.

Research was on project basis in response to requests from other parts of the ministry, or perceived opportunities for significant improvements. Traditional emphasis on highway and transit system infrastructure continued, but the area of electronics communications and control assumed new importance because of its ability to improve the efficiency of existing systems and high potential for industrial spin-offs.

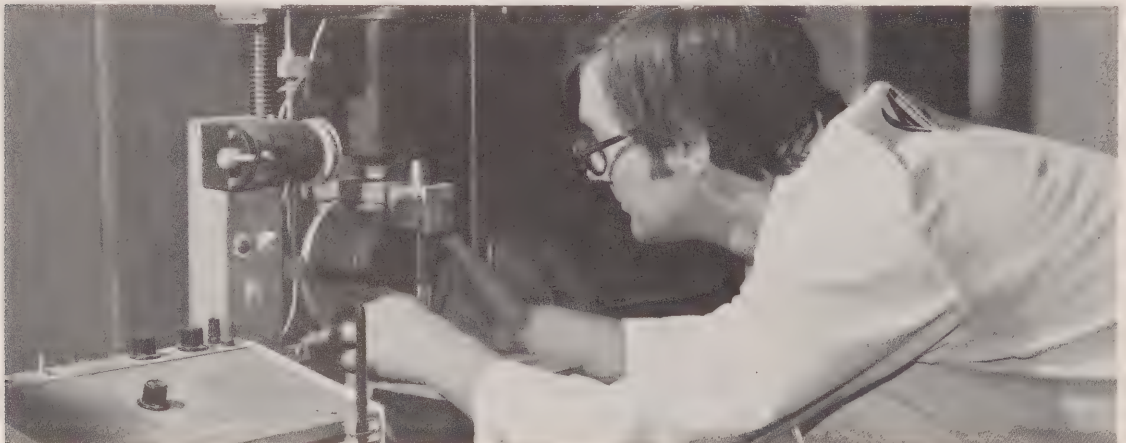
Activities of the various groups within the branch are described below.

Control Systems

This group was involved in advanced electronics technology, developing microprocessor-based traffic light control systems, writing the programs to help traffic travel more smoothly and efficiently through towns and on freeways, and bringing the benefits of innovative technology to bear on practical communications problems.

During 1981, staff completed software design for the expansion of the QEW traffic management system and continued technical support to the 401 Bypass, QEW/403 corridor, and Burlington Skyway projects.

The Municipal Traffic Control System (MTCS) and the SSTOP traffic signal timing projects moved into the implementation stage with installations





Control room for QEW freeway management system

in Brantford, Oshawa, and Kitchener/Waterloo.

Personnel also completed a feasibility study of fibre optics communications for the 401 project and evaluated and demonstrated infra-red laser communications with a link between Queen's Park and the CN Tower and an interconnection with the Telidon information system.

Transport & Vehicle Systems Office

Working closely with the Toronto Transit Commission (TTC), staff developed video monitoring and instrumentation techniques to measure the dynamic behaviour of subway cars.

Testing showed that older, pre-H4 cars were causing excessive track wear and the economic and performance benefits of new suspension designs were established. One new design was built (by Dofasco in Hamilton) and will be subjected to rigorous testing.

At the request of TTC, staff also developed subway car truck suspension design specifications to ensure satisfactory performance in future procurements.

A theoretical (computer) model was developed of the noise and vibration produced by the new TTC/UTDC light rail vehicles. The model was tested against the real thing and proved very reliable, helping future analysis.

A new type of rubber-cushioned streetcar wheel designed by our staff

was also tested, as were ring-damped steel wheels to reduce subway squeal.

Staff also worked to promote the introduction of articulated buses in Canada because of their greater efficiency and export potential. The General Motors bus was tested at Huron Park and familiarization sessions held for transit operators.

Other projects included: assistance to the Ministry of Northern Affairs in their study of a cable-towed ferry at Moosonee. And work continued with the Institute for Aerospace Studies (UofT) to develop a sophisticated computer simulation of the actions of drivers and the dynamic behaviour of tractor/trailers in emergency maneuvers.

Automotive Energy

This group worked on the conservation and substitution of petroleum fuels. On behalf of the TEMP program, staff continued detailed testing of propane-powered vehicles and the effects of weather conditions, such as extreme cold, on performances.

Research also started on a project to improve the practicality of compressed natural gas (CNG) as an automotive fuel. The research centres on the search for a suitable storage medium — a chemical substance that will use natural molecular forces rather than extreme pressures to compress enough of the gas into a standard container to give

a CNG-powered vehicle a practical operating range.

Other research included testing of methyl-alcohol-based fuels, the effect of winter tires on fuel economy, the fuel-saving potential of block and cab heaters, and assessment of many alleged fuel-saving devices and additives. None of the latter worked better than a good tune-up and a careful driver.

Ergonomics Human Factors Research

Staff studied the interaction of people with machines and their environment in the field of transportation and communications, particularly as they related to highway safety. Projects completed included:

- The effectiveness of driving counsellor interviews and evaluation of a professional development program for counsellors;
- Evaluation of driver education in Ontario schools and development of a draft curriculum;
- A roadside survey of seat belt and child restraint use and a poll of public attitudes towards associated legislation and enforcement;
- Surveys of truckers' compliance with commercial vehicle legislation; the operational efficiencies of truck inspection stations and mobile units.

In March, 1982, this office joined the social and policy research office which reported directly to the executive director.

Materials and Environment Research

Staff here was concerned with the use of materials and their performance in the highway environment. Highlights of the year's activities included:

Concrete

A thorough study of the Papineau Creek Bridge on Highway 62 near Maynooth prior to being paved provided an opportunity to compare several bridge deck deterioration detection techniques.

Methods tested included infra-red thermography, radar scanning, ultrasonics, microseismology, and beating the deck with a chain. Of these, the first two were most promising.

MTC also co-sponsored the first world congress on joints and bearings at Niagara Falls.

When the Appleby Line QEW overpass was demolished, staff took the opportunity to investigate conditions of post-tensioning cables after 25 years of service.

They were found to be in excellent condition — an important finding in view of the number of pre-stressed concrete bridges in Ontario.

In addition, an outdoor exposure plot was constructed at the Brampton patrol yard where the durability of different types of bridge slab repairs were tested by subjecting samples to electrically-induced corrosion.

Techniques and Materials

Investigation into minimizing the use of de-icing salt continued, while on-road test comparisons of sand-salt ratios were carried out.

Studies of asphalt pavements containing sulphur, ground-up rubber tires and ways in which these products could be adapted to normal construction techniques took place.

Heavy snow during the winter provided an opportunity to continue evaluation of new snow fence designs and effects of road-cut slopes on drifting in problem areas, leading to changes in MTC practices and remedial work on roadside embankments.

A major study to investigate on-road

and bridge deck drainage was completed at the Canada Centre for Inland Waters at Burlington. Current and proposed sewer inlet designs were tested and design methods developed.

Other work included studies into ways to use geotextiles in the stabilization of embankments over soft subsoils. Completion of a new Ontario shale rating system and associated test methods for evaluating shale-based engineering materials were also developed.

Pavement Research

Many projects were done to further advance the design, maintenance, and rehabilitation of asphalt pavements. They included computer analysis, field measurements, and the development of laboratory test methods to determine elastic moduli values (a measure of strength) and incorporate these values into the computer-based OPAC pavement design system.

The use of plastic mesh reinforcement to strengthen asphalt pavements was investigated in theoretical studies at the University of Waterloo, backed up by tests at Royal Military College, and field trials on Highway 5 near the Guelph line. Results were promising but some problems remain.

The RTAC project to evaluate the weigh-in-motion truck scales

developed by the University of Saskatchewan moved into a new phase. The scales are considered to have proven their ability to function in the "hostile" weather and traffic environment of the 401 near Whitby.

During the year, they were removed for refurbishing and improvement and re-installed for new trials as a "sorter" scale — categorizing vehicles in the traffic stream and selecting them for further inspections.

Other projects included the testing of "time domain reflectometry" as a means of electronically measuring the water content of materials, and a co-operative project with Ottawa district to monitor and improve pavement maintenance techniques.



Laying a rubberized asphalt surface



New Credit River Bridge on Highway 403 now under construction

Highway Environment Research

Staff developed a design for noise barrier foundations. They also developed techniques for the acoustic design of the barriers, taking into account such factors as sound transmission loss, sound absorption and reflection.

Staff also worked closely with researchers at the University of Toronto to develop a pavement reflectance matrix photometer — the first instrument of its kind in North America — so the light reflectance properties of pavements (an important factor in illumination design) can be measured in the lab from small core samples.

Other activities included work to develop automated equipment for determination of skid resistance by using stereo-photography of pavement texture. Further refinement of computerized lighting design methods also took place.

Structural Research

Staff continued to work towards a better understanding of the behaviour of bridges and develop means to make them safer and more economical. A major step in this direction was the further development of the Ontario Highway Bridge Design Code.

The first draft of the revised edition went out for public comment in 1981. Developing codes in Australia, New Zealand, and Japan were based on the Ontario model.

Another highlight was the construction of the world's first transversely post-tensioned timber bridge on a logging road near Espanola. By combining modern design techniques with the traditional qualities of wood, it was possible to make the bridge both cheap and remarkably strong.

Two major bridges in Ottawa suspected of being unsound were tested and given a clean bill of health.

Experimental Demonstration and Testing

Staff provided technical and logistical support to project groups within the division, providing technicians, instrumentation, and facilities such as a test track, a chassis dynamometer, and laboratory facilities. Data was collected, recorded, and digitized, then submitted for analysis.

In 1981, the typical workload was about 20 projects at any given time; however, major projects were:

Instrumentation of two Ottawa bridges; participation in on-the-scene investigations of commercial vehicle accidents in the Metro Toronto area; road and dyno testing of methanol as a fuel; survey and assessment of roadside noise barriers; and development of measuring techniques and data recording and analysis of subway wheel noise and vibration.

Technology Transfer

Personnel provided complete publishing services to researchers in the division and the TEMP. The installation of an AES C-20 shared-logic word processor with four terminals brought a major increase in productivity and capability. For the first time, it became possible to type scientific notation with ease and to store equations in magnetic memory.

Successful experiments were also carried out to communicate with other word processors and typesetting computers and to compile and sort book-keeping information and mailing lists.

Other accomplishments in 1981 included:

Publishing of 47 technical reports, 41 TEMP documents, and about 20 miscellaneous documents such as society papers; streamlined procedures such as standard formats to speed production; and completion of three films in co-operation with audio/visual services on tunnelling technology, anti-jackknife testing, and fuel-efficiency for trucks.

External Relations

Over the past year, the co-ordinator continued the task of broadening and strengthening contacts with transportation agencies of other governments and transportation industry. This activity is designed to contribute to the ministry's objective of ensuring a strongly consolidated position in the development, maintenance and administration of transportation policy.

The importance of transportation as a key element in national economic recovery — because of its influence on every business sector and major regional development programs — adds further weight to MTC's efforts to

contribute to an appropriate national transportation policy.

Issues related to the relative responsibilities of the federal and provincial governments continued to dominate transportation associated activity. An issue of major significance was the reduction of VIA rail passenger service announced by the Transport Canada minister in the summer of 1981.

A discussion forum of representatives from MTC and Transport Canada set up early in 1981 continued discussion of matters of mutual concern.

Transportation Energy Management Program

TEMP is a co-operative program with the Ministry of Energy aimed at reducing Ontario's dependence on oil as a transportation fuel in both the private and commercial sectors — by improved conservation, greater efficiency, use of alternative fuels or substitution of the need to travel by improved electronic communications.

During the year emphasis was on promotional and educational activity, but continued research carried out into alternative fuels and computerized traffic control. A summary of other work includes:

Trucksave

Operating under the guidance of an advisory committee composed of volunteer members from the trucking industry, Trucksave produced and distributed large quantities of fuel conservation material. Topics included driving techniques, cooling system tips, aerodynamic devices, and case studies in fuel savings.

Material was also distributed through displays set up in 30 major truck stops; a fee was levied for large orders, out-of-province orders and the Trucksave film, *Less Fuel, More profit and the Easy Goin' audio-visual package.*

In addition, background for a series of manuals titled *Spec'ing a Fuel Efficient Truck* and a series of vehicle maintenance was developed.

Drivesave

Staff offered one-day seminars for fleet managers on a weekly basis and distributed a quarterly newsletter. They also advised 30 companies on how to implement fuel economy programs.

In addition, Drivesave clinics were held in Kitchener and Toronto where 1,400 motorists were advised on maintenance and tire pressures. Hundreds of fuel economy calculators were also distributed.

In January of '82, staff participated in filming of a 20-minute fuel economy

film for use in driver education classes called the *Drivesave Zone*. Pre-testing in schools showed a positive response.

Ridesharing

Personnel continued to assist companies establish van and car pool programs, and promote the concept of company sponsorship to major employers.

Ridesharing was also promoted through participation in major exhibitions around Ontario. In addition, staff continued management of a *Share-a-Ride* program at MTC in Downsview.

Teleconferencing

Work continued to demonstrate the effectiveness of electronic communication as an alternative to travel. Four demonstrations were given to private industry in addition to demonstrations

for the Ministries of Revenue, Energy, Northern Affairs and Environment.

New informational materials were also developed including an audio-visual package and new publications to promote the concept.

Alternative Fuels

The objective of this program is promotion of the use of alternative fuels as a replacement for petroleum-based fuels. More than 15,000 propane-powered vehicles are now registered in Ontario.

New technical brochures on propane conversion were produced, but the thrust was directed at consolidating data on vehicle performance.

Other work included research on compressed natural gas, hydrogen, alcohol fuels such as methanol and electric vehicle developments.

Policy Planning Research

Social & Policy Research

This office was established to research social and behavioural impacts of MTC's programs and policies. Additional staff came from ergonomics research and the transportation outlooks office.

Personnel provided consulting services to MTC staff in the fields of survey research, experimental design and statistics. A study for the *didemus* task force to assess the attitudes and concerns of employees in finance and administration was also carried out.

Demand Forecasting

During the year, staff worked at improving demand forecasting techniques, accumulating and maintaining a large data base of transportation statistics while providing guidance in its use.

Work continued to identify multi-modal and inter-modal opportunities and on applying a "scenario" approach

to demand forecasts as input to the GO electrification study.

Inter-City Transportation

Work continued to develop a broad policy framework for inter-city transportation. Emphasis centred on inter-modal flexibility and on analysis of different sectors of the industry.

Transportation Outlooks Office

Staff completed a scanning of 63 professional "futures" volumes and identified 117 indicators — factors which indicated past and future trends. This data was built into a computer data base for forecasting and analysis.

In depth studies of the indicators were commissioned to refine profile development. A presentation of findings was also presented to senior management at their outlooks session. In March, 1982 this office was re-organized to form part of social and policy research.



MTC's "Trucksave" program promotes fuel conservation

Provincial Highways



Snow ploughing is a vital winter maintenance activity

Responsibility for field operations of various Ministry programs is allocated to five regional and 18 district offices within the regions.

Regional offices are located in Toronto, London, Kingston, North Bay and Thunder Bay.

Northern Region

Construction

Major construction included completion of the four laning of Highway 11, Huntsville northerly and the North Bay Bypass on Highway 11.

Construction was completed on Highways 549, 101, 571, 64 and 65. Clearing was completed for all Detour Lake Rd. construction northeast of Cochrane.

Contracts involving recycled asphalt were completed on Highway 11 at the following areas: Cochrane W'ly; Smooth Rock Falls W'ly; New Liskeard N'ly, and between Highways 112 and 66; on Highways 60, 66, 17, 141 and 69.

Structure work was completed on Highways 35, 652, 539 and Detour Lake Rd., and continued on Highway 572. Construction was also carried out with the 1st and 2nd Detour Lake Rd. grading contracts.

Maintenance

Summer work was carried out on some 3,500 miles (5,635 km) of King's

secondary and tertiary highways. Two ferries were operated at Moosonee and Gardiner. In addition to routine maintenance operations, projects for gravelling, priming, surface treating, mulching and asphalt patching were completed.

Winter maintenance took place on most of this mileage, and privatization in the repair area of garage operations was continued.

Municipal

Staff administered various road assistance programs to 132 organized municipalities (one county, two regions, three cities, 35 towns, seven villages, 81 townships, 3 improvement districts), 21 Indian reserves, 112 local roads boards, and 11 statute labour boards, including subsidy, development roads and connecting links in organized areas and special and specific allotments in unincorporated areas.

Engineering & Right-of-Way Office

Personnel completed 28 sets of contract plans and documents for the capital construction program, representing a total value of \$62,196.00 in roads and bridge projects. Approximately 85 per cent was done in-house with 15 per cent by consultants.

Staff also carried out property acquisition for the program and continued with legal, engineering and geotechnical field survey operations.

The office completed environmental and corridor control activities and provided input into the ministry's pavement management system.

Drivers & Vehicles

This section, under the direction of the regional office, was divided into two districts located in North Bay and Timmins, serving the districts of Parry Sound and Nipissing; the district municipality of Muskoka; the provisional county of Haliburton; the districts of Timiskaming, Cochrane, Sudbury, Manitoulin Island; the Regional Municipality of Sudbury and the easterly portion of the district of Algoma.

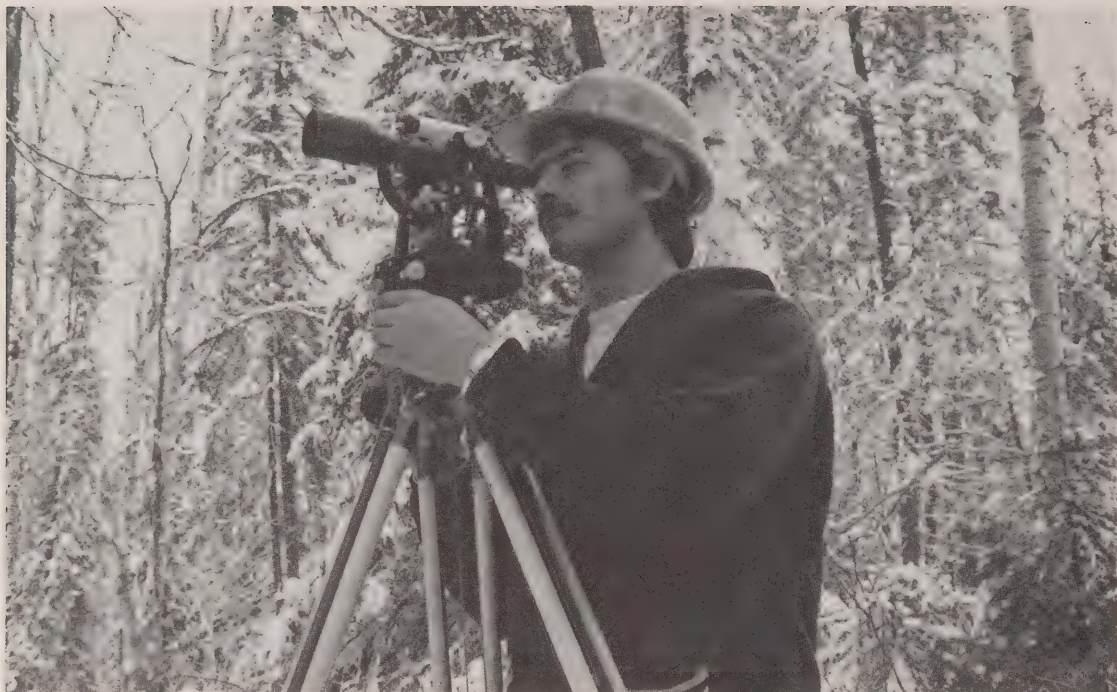
A staff of 73 employees was responsible for the driver examination, motor vehicle licence issuing, driver improvement counselling, vehicle inspection programs and enforcement of The Highway Traffic Act, Public Commercial Vehicles Act, the Public Vehicles Act and the Motor Vehicle Transport Act.

Twenty-five driver examiners and clerical support conducted a total of 33,916 road tests and 44,887 pre-examinations at 9 driver examination centres and 19 travel point locations.

One regional review officer responsible for driver improvement counselling, conducted a total of 1,596 interviews with drivers who had reached the nine demerit-point level and conducted a total of 30 hearings.

Twelve vehicle inspectors conducted 5,327 commercial vehicle inspections, 1,226 school bus inspections, 217 inspections of church school buses, transit buses, "physically disabled passenger vehicles" and highway buses.

They also conducted a total of 1,661 audits and investigations of licensed motor vehicle inspection stations, and



Surveying on the Detour Lake Road northeast of Cochrane

operated portable mini safety inspection lanes throughout the region, which resulted in the inspection of 2,959 light trucks and cars.

A total of 669 vehicles were removed from service for safety-related defects. Audits, investigations and inspection of vehicle inspection stations, commercial vehicles and passenger and light truck vehicles, resulted in a total of 621 charges being laid under the HTA.

Highway carrier inspectors conducted a total of 117,222 inspections at five permanent truck inspection stations, four audit truck inspection stations and eight patrol areas. A total of 6,625 reports of suspected violations were completed, with 4,968 resulting in court action taken.

The motor vehicle licence issuing office staffed by ministry employees in North Bay, conducted 25,543 transactions.

Northwestern Region

Construction

A total of 17 projects were completed last year, including seven contracts on Trans-Canada Highways 11 and 17. Other work involved completion of a contract on Bending Lake Road; including the Seine River Diversion Structure; complete reconstruction on sections of other Kings and secondary highways; construction of three culverts and approaches on secondary highways

and one structure rehabilitation project at the Selim Hill CPR overhead.

Eight projects involved the use of recycled hot mix materials.

Contracts were awarded for construction of the final section of Highway 596 leading to Minaki and construction of the final section of Highway 584 north of Geraldton.

Construction of the Kenora Bypass began with completion of a clearing contract and the award of a contract for construction between Highways 17 and 596.

Maintenance

Routine summer and winter maintenance was performed over 5,800 km of King's secondary and tertiary highways. In addition, capital maintenance projects including bridge and culvert repairs, prime and surface treatment projects, maintenance crushed gravel contracts and construction of a new five-bay patrol garage at Sioux Lookout were completed.

Municipal

During the year, 70 municipalities and 11 Indian reserves received regular subsidies amounting to \$14,541,700. Staff undertook 10 connecting-link projects at a cost of \$1,640,000 and three development road projects totalling \$177,000. Some \$2,614,800 was provided to 111 local road boards, 11 statute labour boards, 26 Indian reserves (8 in remote north) and other informally organized groups involved with public roads outside MTC's jurisdiction.

Engineering and Right-Of-Way

Office staff completed the pre-contract engineering and property acquisition for 10 highway construction projects which included 22 km of new construction, 74 km of reconstruction and 96 km of resurfacing. In addition, pre-contract engineering work was carried out for 15 day-labour projects covering a total of 90 km of reconstruction.

In addition to carrying out structural planning and design work on the overall highway system, the structural section provided engineering expertise to municipal and/or organized townships within the region on a total of 65 bridges and culverts. Personnel also carried out engineering studies for maintenance programs and program planning purposes.

Drivers and Vehicles

Drivers and Vehicles staff conducted 24,307 pre-examination tests and 14,521 road tests. In addition, 1,992 demerit point interviews and 38 medical hearings were completed.

Vehicle inspection staff conducted 4,695 inspections of commercial motor vehicles resulting in 163 charges. A total of 1,135 buses were inspected and 3,281 motor vehicles were inspected at portable inspection lanes of which 2,738 were found defective.

The highway carrier section inspected 87,223 commercial motor vehicles resulting in 2,756 court convictions.

The regional motor vehicle license issuing office conducted 47,887



Work on the Toronto By-pass section of Highway 401

transactions related to the registration of vehicles.

Remote Airport Program

While 17 airports were maintained, construction was completed at Sachigo Lake and Deer Lake. Administration and control over eight reserve road projects took place.

Central Region

Construction

Construction of Highway 403 from Toronto to Oakville continued with completion of the section from the QEW to Winston Churchill Blvd. Work continued on the section between Winston Churchill Blvd. and Mississauga Rd. and contracts were awarded for the final section between Mississauga Rd. and Highway 10.

Work continued on the widening of Highway 401 east of Toronto with the contract between Oshawa and Bowmanville being completed except for some final lift paving. Work also continued west of Toronto with the resurfacing of Highway 401 between Milton and Campbellville.

The construction of the twin multi-span segmental bridge carrying Highway 406 over Twelve Mile Creek has been virtually completed and work continued on the construction of Highway 406 with work on the local roads and the intersection of the QEW.

Contracts were awarded and work

progressed on new arteries such as Highway 404, Highway 427, Black Creek Dr. and Highway 6N in the vicinity of Caledonia.

The multi-year bridge deck rehabilitation program continued with the award of nine contracts.

Engineering and Right-of-Way

Staff prepared a total of 58 projects for contract advertising primarily associated with freeway designs in the Toronto-Hamilton area. Design work continued on major improvements in the Burlington Beach strip area of the QEW and rehabilitation of the Metro Toronto Highway 401 Bypass.

The planning and detailed design of numerous projects on deficient sections of highways in the region were also carried out.

Regional Municipal Office

Staff was responsible for managing the municipal road programs, including overall budget control for the subsidy, King's Highway connecting link and development road programs in Central Region.

This office administered a connecting link program involving 38 projects with a provincial contribution of \$4,647,700, including \$260,000 for maintenance in towns and villages. The development road program, consisted of two projects involving a provincial expenditure of \$77,000.

During the year, 115 municipalities and six Indian reserves received regular subsidies under the Public Transportation and Highway Improvement Act. In addition, 13

municipalities received subsidies under the Traffic Signal Program.

Maintenance

The highway system in Central Region was expanded to a total of approximately 4,929 two-lane kilometres, primarily due to the widening and extension of several freeways.

Hot mix patching in Hamilton and Toronto Districts took place with a total of 22,300 tonnes laid.

The winter of 1981-82 was usually cold and long. In winter maintenance, 263,000 tonnes of sand, and 126,000 tonnes of salt were used to ensure highway safety.

Thirty new signals were installed on highways in response to increased traffic volumes.

On Toronto district freeways, emergency patrols continued to operate, driving approximately 1,060,640 km, while providing assistance to some 30,626 motorists, and dispensing a total of 13,011 Litres of fuel.

Drivers & Vehicles

Staff conducted 293,682 pre-test examinations and 220,927 road tests for driver's licence applicants. As well, 412,919 temporary driver's licences were issued. Driver improvement counsellors conducted 17,644 demerit point interviews, 175 medical hearings and 234 accident repeater interviews. In addition, driver improvement staff conducted 13,561 vision tests and 73 medical waivers.

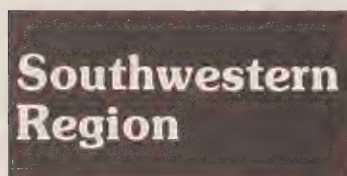


An annual highway maintenance project

Four licence issuing offices located at Toronto, Oshawa and Hamilton dealt with 556,078 transactions.

Personnel checked 24,773 commercial motor vehicles both at truck inspection stations and carrier terminals. Of these, 2,031 vehicles were removed from service or tagged unfit. A total of 45,470 cars and light trucks were inspected at either permanent or portable lanes and 4,705 vehicles were removed from service. Approximately 3,480 school purposes vehicles and 1,607 commercial buses were also inspected. And 13,153 audits of motor vehicle inspection stations were conducted.

Staff inspected 1,725,408 commercial motor vehicles which resulted in 12,632 court convictions.



Construction

Contracts awarded during 1981 included the construction of Highway 402 from Christina St. in Sarnia to the Bluewater Bridge Plaza. It also provided for a new interchange at Front St. and two new structures over the CNR tracks.

A further contract was awarded for construction of two lanes and structures on the E.C. Row Expressway between Highways 3 and 18. When completed, it will provide a direct route through the City of Windsor from Highways 2 in the east to 18 in the west.

Following the completion of a 5.1-mile paving contract awarded earlier in 1981 the Minister officially opened the 11.2 mile section of Highway 402

between Highway 401 and Highway 2 to traffic. A contract for the assumption and reconstruction of former Waterloo Regional Rd. 20 now provides a bypass of the Town of Elmira on Highway 86.

Work also continued on Highway 11 between Orillia and Severn Bridge with the award of a contract for the installation of box beam median barrier and provision for two new interchanges. A contract was awarded for the reconstruction of Highway 27 between Elmvalle and Waverley, providing for the construction of northbound and southbound truck-climbing lanes south of the junction of Highways 27 and 93.

Contracts were awarded for reconstruction of Highway 2 through the Town of Tilbury, Highway 77 from Highway 401 southerly, Highway 2 between Woodstock and Eastwood, Highway 7 from Frederick Street easterly, Highway 25 from the junction of Highway 24 northerly and Highway 40 from Wallace westerly.

Resurfacing contracts were awarded on Highway 21 from Thamesville to Dresden — 10.3 km, Highway 59 — 6.1 km, Highway 401 — 16.1 km, Highway 86 — 12.5 km, Highway 6 — from Tobermory southerly 29.8 km and Highway 4 — 16.3 km in the vicinity of Durham and Priceville.

As part of the MTC's preventative maintenance program, perforated pipe subdrains were installed under contract on Highways 402 and 40 for a total of 44.2 km. In addition, a contract for the application of bridge-deck protection was awarded for work to be carried out on three structures on Highways 85 and 7 in Kitchener.

Maintenance

Approximately 4,981 equivalent two-lane kilometres of highway were maintained in Southwestern Region. In

addition to routine summer and winter maintenance, 275,000 meters of pavement cracks were sealed under our preventative maintenance program and slope flattening was carried out at 16 locations.

Also, traffic signals were provided or updated at seven locations, freeway signing was updated on Highway 401 and major bridge-deck joint repairs carried out on three structures.

Four new sand domes were constructed in the region and an experimental timber truss dome strengthening project was undertaken at Forest Home. Also, the Barrie and Coldwater Patrols received new garages.

Municipal

A total of \$114,158,442.55 in subsidies was paid to counties, regions, cities, towns, villages, townships and Indian reserves in the region. Approximately \$4,700,000 was expended on 40 connecting link projects and \$670,000 on six development road projects. In keeping with the Ministry's program of supporting the replacement or repair of deficient bridges, during the past year, some 42 structures were replaced and another 34 repaired.

Drivers & Vehicles

This office, consisting of 186 staff, comprised three districts headquartered at London, Windsor and Kitchener. Under the direction of the regional office, activities involving driver examination, licence issuing, driver improvement counselling, vehicle inspection and the enforcement of various provincial and federal statutes regulating the movement of people and goods were carried out.

The 1981-82 fiscal year brought



A resurfacing project using re-cycled asphalt

about further decentralization in the establishment of both a regional investigations and prosecutions office as well as an agents control unit.

The former, even though not fully staffed until January, completed 138 compliance audits, dealt with 21 complaints and conducted 356 investigations on unlicensed trucking. Extensive training in head office did not allow for the completion of any motor vehicle licence issuing agent audits prior to the end of the fiscal year.

The economic decline appeared to have minor impact on the demand for driver examination services. Road tests amounted to 90,800, pre-examinations 132,827, and replacement driver's licences 26,552.

It is also undeterminable whether or not the probationary driver's licensing system caused a decline in the number of demerit point (8,670) and accident repeater (47) interviews conducted. However, hearings rose to 91 and 67 medical waivers necessitated almost immediate scheduling.

The three MTC issuing offices conducted 157,308 transactions and generated \$5,413,563 in revenue.

Vehicle inspection experienced an increase in activity. Staff performed 9,158 motor vehicle inspection station audits, 2,134 school bus inspections, 925 inspections of other types of buses under regulatory control, and carried out 9,035 commercial motor vehicle checks.

This year, the mini-lanes were utilized more extensively. This operation, along with the regular summer portable lanes, subjected 10,131 vehicles to mandatory inspection and caused either the removal or surrender of 2,570 sets of plates.

Despite the fact that the highway carrier working force was substantially reduced because of the regional investigations and prosecutions team training sessions, an increased number

of vehicles (615,425) were inspected at both the truck inspection stations and in area patrol. This resulted in 12,823 reports on alleged violations.

Eastern Region

Construction

Piers, abutments and approach fills were completed on the new Norris Whitney Bridge which will carry Highway 14 across the Bay of Quinte, south of Belleville.

With the completion, late in 1981, of a 6.1 mile section of New Highway 17, from Highway 41 westerly to Renfrew County Rd. 17, the grading of the Pembroke Bypass was finished.

A resurfacing contract, from 8.7 km east of Highway 37 easterly 26.9 km was completed in the fall of 1981, utilizing a portion of the existing pavement in the resurfacing.

Highway 401 from the Quebec boundary westerly 16.3 km to Lancaster was resurfaced and another resurfacing contract on Highway 401 from 2.0 km east of Highway 16 easterly 16.6 km was 90 per cent completed.

Construction or reconstruction was also carried out on Highways 2, 14, 16, 17, 31, 33, 34, 37, 60, 62, 417, 500, 509, 511 and 620.

Engineering & Right-of-Way

Nineteen capital construction projects were prepared for award. An additional 35 miscellaneous projects were also processed by office staff.

A major study on a Highway 16 corridor was initiated to determine the final connection to the City of Ottawa. A multi-disciplinary study, it involved representatives and councils from the cities of Ottawa, Nepean, and Kanata,

the Regional Municipality of Ottawa-Carleton, the National Capital Commission and the MTC. The study was 75 per cent complete.

Maintenance

Major winter activities consisted of 1,333,211 kilometres of snow plowing and the use of 85,307 tonnes of salt and 53,209 cubic meters of sand for spreading.

Summer maintenance activities included 5,271 kilometres of centre-line and 4,426 kilometres of edge-line painting. Some 29,231 trees and shrubs were planted, and 2,837 hectares of brush and weeds sprayed. Two traffic sets were erected and five updated, 109 luminaires erected.

Municipal

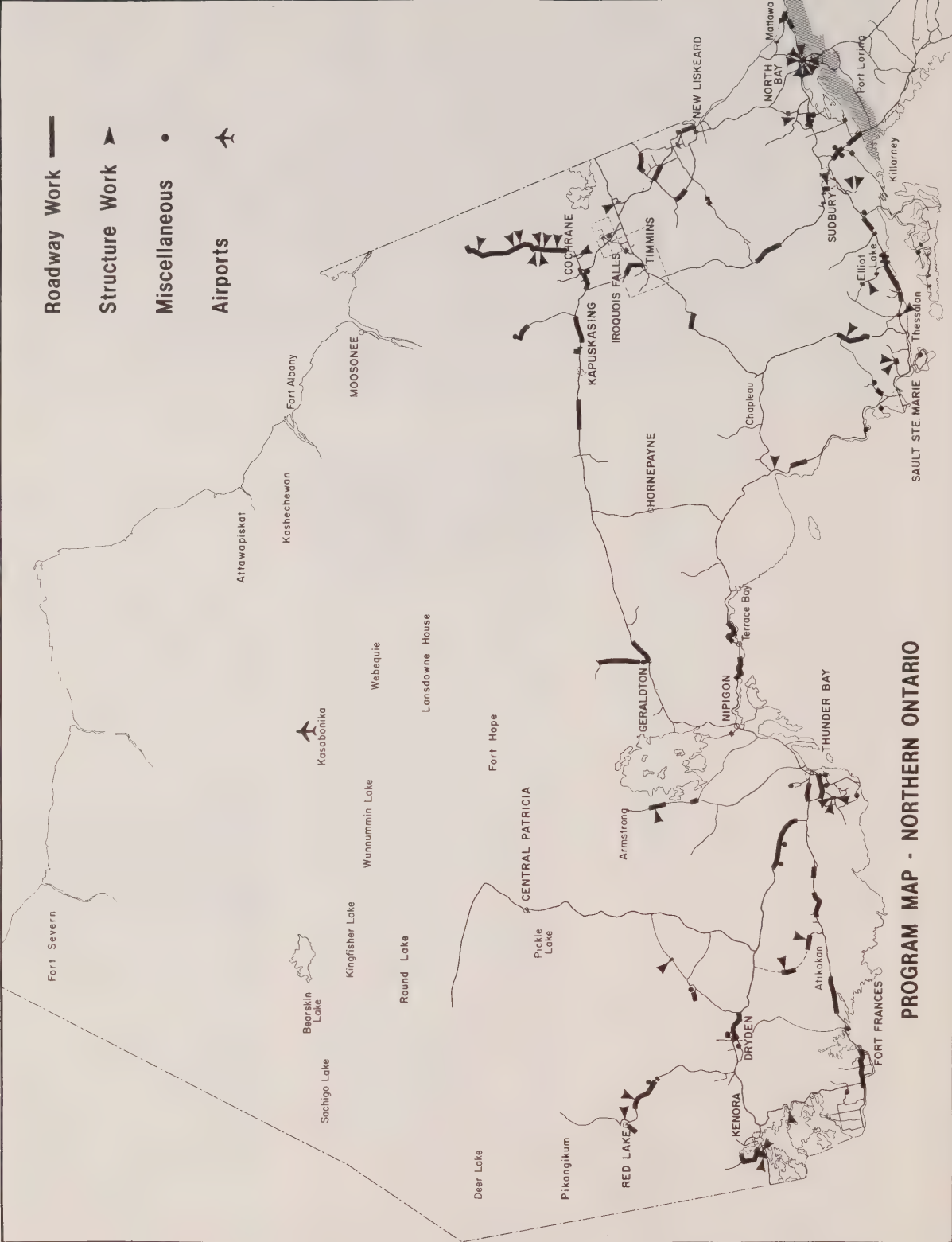
A total of \$83,837,557 in subsidies was paid to regions, counties, townships, municipalities and Indian reserves. In addition, the region expended \$2,988,420 under connecting link agreements and 26 development road projects received \$4,136,100.

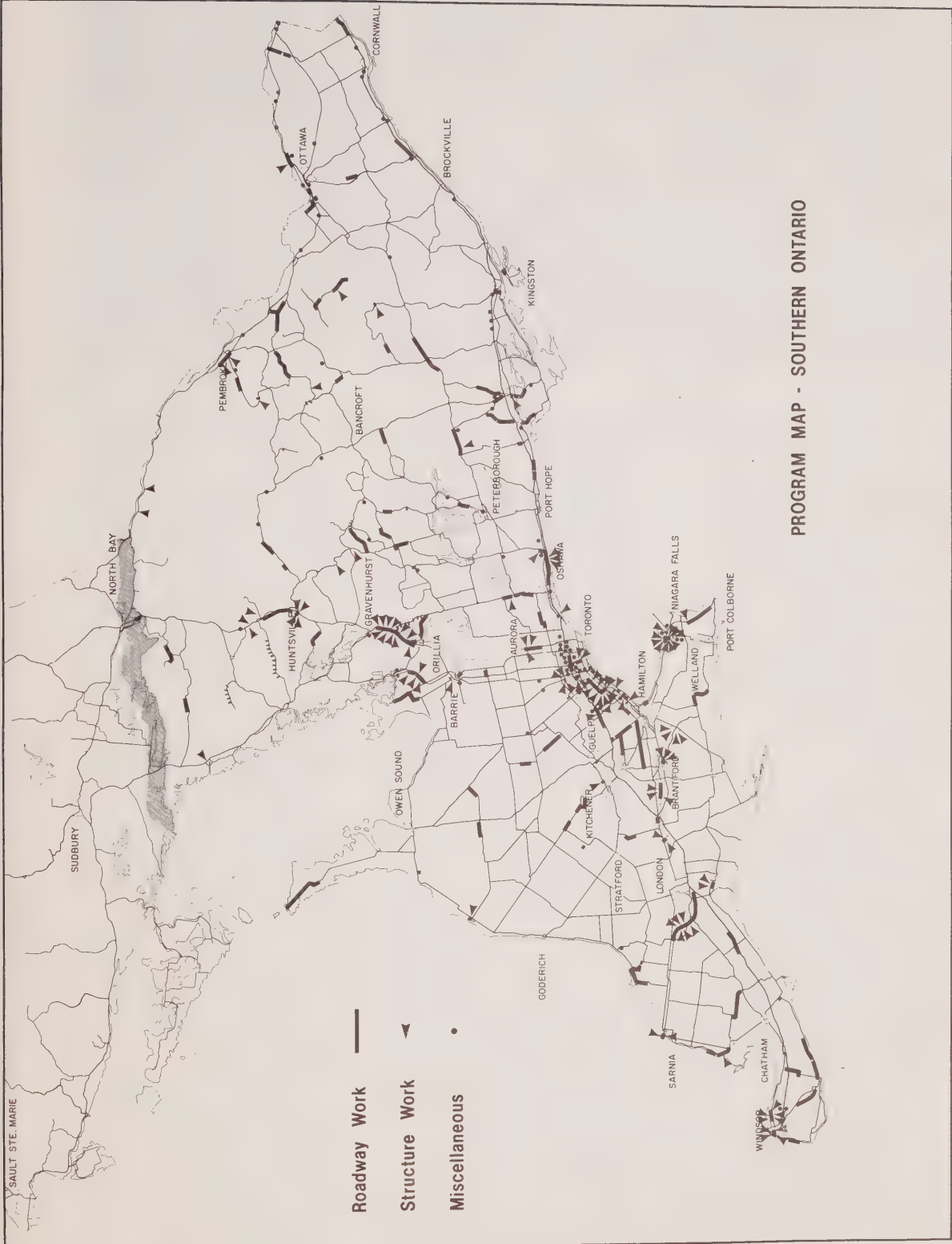
Provincial contributions were also made to the airport program, \$6,585; ferries, \$715,337; and traffic signals, \$375,061.

Drivers & Vehicles

Staff conducted some 95,703 pre-examinations and 55,229 road tests were for driver's licence applicants. Driver improvement counsellors held 4,194 demerit point interviews, 81 hearings, and nine accident repeaters.

Inspections of 5,615 commercial motor vehicles were carried out at roadside or truck terminals; 4,072 vehicles inspected by the portable inspection lane and 616 had serious defects; 3,156 school bus inspections were carried out while highway carrier inspectors checked 173,547 vehicles.





PROGRAM MAP - SOUTHERN ONTARIO

Highway Engineering Division



Bridge deck repair at the Highway 427/QEW interchange

Engineering Materials Office

Pavement and Foundation Design Section

Foundation investigations were carried out appropriate reports for foundation design and construction prepared for a total of 90 structure and earth/rock work projects. Of these, 60 were done in-house and 30 by geotechnical consultants working under the direction of the unit. In addition, 57 foundation reports for inclusion in construction contracts were also prepared.

Preliminary and final foundation design drawings were reviewed for 75 projects scheduled for construction in the next two years. Specialist advice and service was provided to MTC, municipal and other agencies on all aspects of foundation design and construction.

This included some 35 MTC and municipal construction problems where site inspection by senior staff was necessary to provide recommendations for immediate remedial action. Such problems included embankment and other earthwork failures, culvert and tunnel failures and one abutment foundation failure on a municipal project.

An important contribution to foundation engineering was provided by the unit's publication entitled "Pile Load and Extraction Tests 1954-1980". The information was extremely valuable and when properly used can result in large savings in pile design. It has been widely acclaimed and in great demand by universities, consulting engineers and government, plus other agencies.

A seminar on limit state concepts of foundation engineering was organized and contributed to by staff in co-operation with the Consulting Engineers of Ontario and Canadian Geotechnical Society. It was attended by 300 geotechnical and structural engineers.

Seven different instrumentation projects were initiated to monitor settlements due to rock fill compressibility and consolidation of compressible subsoil. Also, in progress was an instrumentation project to monitor earth pressures and vertical and lateral deflections of a structure abutment founded on compacted granular soil.

Bituminous Section

A major study into the construction and performance characteristics of recycled hot mix continued: one interim report was issued and two technical papers were presented. Recycled hot mix now accounts for more than 40 per cent of the ministry's annual hot mix needs and provides a 20 per cent cost savings over conventional hot mix.

As part of the increased interest in preventative maintenance, a study of crack filling materials and methods was underway with a view to improving the performance of crack fillers, and the second interim report was issued.

Initiatives in the area of low-cost pavements included the writing of a specification for cold-mixed cold-laid bituminous pavements and approval of a second emulsified asphalt primer as an alternative to MTC's primer.

Specialist services in all aspects of bituminous materials, construction and maintenance were provided to the regions and districts, and municipal agencies on a limited basis.

Asphalt materials testing and mix design were carried out for central region and for the other regions on request.

Work also started on development of a statistically-based quality-assurance system for the evaluation and acceptance of newly constructed hot mix pavements.

Concrete Section

Through participation in the activities of various committee and task forces and the establishment of policy, staff continued to play a major role in the development of technology and procedures for the maintenance and rehabilitation of structures and increased durability in new construction.

Epoxy coated bars, increased concrete covers and a higher quality concrete were specified for some substructure elements such as abutments and piers. The minimum thickness of bridge decks and barrier walls was increased.

The first audio-visual training aid on bridge deck rehabilitation was issued to the regions. A division directive was published to clarify responsibilities of various MTC units with regard to the rehabilitation of bridge decks.

Work progressed on the development of performance type specifications for concrete construction and responsibility for the quality of the work was placed on the contractor. A performance-type specification was simulated on two composite pavement



Testing pavement reflectance

contracts in southwestern region. A division directive was issued covering acceptance/rejection guidelines for nonconforming work under the existing specifications.

New policies were introduced governing certification of private concrete testing laboratories. Starting in the three southern regions beginning in 1983, only CSA certified laboratories will be recognized. Correlation test programs with the private laboratories were completed with respect to concrete strength tests, core tests and chloride content.

Work also continued to find ways of using local Muskoka area granitic aggregates in concrete construction and an eminent U.S. consulting engineer assisted in this project.

Technical reports were completed on blast furnace slag cement for concrete construction; the use of lean concrete base in pavement work; strength and potential durability of bridge deck concrete; the effect of various Ontario portland cements on the strength of concrete; and performance of bridge deck expansion joints.

Pavement Unit

Staff took a leading role in task forces/committees on recycling of asphalt pavements, planned quantity payment, provincial standards and new specifications.

Phase I of the semi-automation of the photo-interpretation method for pavement friction level determination was completed. A prototype of a new photo-acquisition system was fabricated, and a new advanced pavement friction-testing brake-force trailer went into operation.

Road roughness measurements utilizing the Mays Meter were carried out on 2,882 kilometres of highway on 91 projects.

Chemicals Section

Staff continued activities related to the maintenance and updating of the designated sources list of materials used in highway construction and maintenance operations, the provision of expertise (advice, trouble shooting inspection/testing, seminars) for all regions.

Technical reports were published on: a comparative study of the durability of the coatings for four types of pre-finished noise barrier panels; performance of an asphaltic-base corrosion-preventive coating compound for use on salt-sand hoppers; testing of well waters that may be or have been affected by ministry winter maintenance activities.

The section participated in a major review and revision of the procedures for structural maintenance and rehabilitation. In this realm, it provided technical input for the surface preparation/inspection procedures and materials specifications.

It also participated in the metrication of several CSA specifications related to galvanizing, welding, concrete pipes and poles.

Soils & Aggregates Section

With input from the section, a special provision, dealing with a statistical approach to quality assurance for one of the most commonly used construction aggregates, was prepared and inserted into all contracts. This rational approach introduced a fairer and more objective way of assessing quality, and it will be used, in future, for other materials.

An industry-wide study revealed that

aggregate producers appear ready to develop and utilize a process control system to control their output. This would be in their interest as producers to reduce their risk, and it would be in the interest of the buyers because their risk would also be reduced. MTC will provide help in setting it up.

Within a general ministry policy, the review of municipal official plans and zoning by-laws became the responsibility of the regional offices.

A material specification for engineering geotextiles was issued along with a list of acceptable products and suppliers. More use for this product is gradually being found in the field.

A microcomputer for use in laboratories was also installed in order to efficiently process the large amount of test data previously handled either manually, or by less sophisticated calculators.

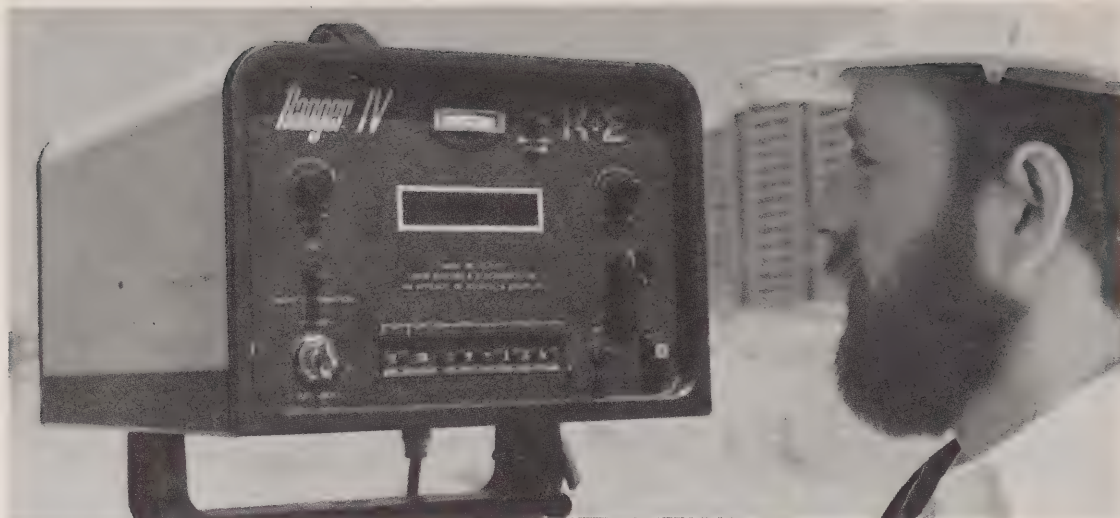
Highway Standards Office

The provision of up-to-date standard specifications and drawings, related policies and procedures for the design, construction, maintenance and safety of highways was the major responsibility of staff.

Progress was made in the development of uniform Ontario provincial standard specifications and standard drawings in conjunction with the Municipal Engineers Association.

Standard drawings section personnel assumed responsibility for the abbreviations and symbols manual which is undergoing a complete revision. Three hundred and sixteen standard drawings were developed and revised for the structural, electrical, roads barriers and drainage manuals. One hundred and fifty-two standard drawing modifications were provided for specific projects.

And the section head took over the



MTC surveyors use up-to-date technology

duties of secretary of the new products committee. Twenty-eight submissions for new products were presented by the secretary on behalf of manufacturers.

The standard specifications section produced nine new construction and material specifications and revised 13 specifications. Six specifications and one supplemental specification were cancelled.

Apart from the normal production of standard special provisions for contract documents, special provisions were prepared for 63 tender items to be included in the new "plan quantity" payment concept.

Structural Office

Design of the new Burlington Skyway was the major bridge project, involving over half the staff of the operating sections. Alternative designs in steel and prestressed concrete for both the main span and the approach spans were nearly complete, with calculations checked by consultants.

Due to the size of this project, an unusually high proportion of other bridge designs was assigned to consultants. Staff supervised the design of 33 bridges by consultants, compared to 16 the previous year, and completed the in-house design for 18.

Construction of the first segmental prestressed concrete bridge on the provincial highway system was completed over 12 Mile Creek on Highway 406. The assignment of two design engineers to the regional construction office for this project was key to the successful application of this new form of construction.

The work of the task force on procedures for structural maintenance and rehabilitation continued with the assistance of four consulting firms. Several quality standards for routine

structural maintenance were incorporated in the maintenance manual and guidelines for the preparation of a multi-year plan by the regions were issued and implemented.

In the approvals section, the number of bridge evaluation checks matched those of the previous year, but the 177 checks of new municipal bridge designs was down by about 20 per cent. Total workload was the same — highlighted by the Burlington St. reconstruction project for Hamilton-Wentworth.

Review work included service to the Ministry of Natural Resources on 10 of their bridges. Staff worked with the Ministry of Citizenship and Culture on a report for heritage bridges, and prepared a list of about 175 with possible heritage interest.

In the procedures section, the computer program OSCLIS was completed to make bridge clearance and load restriction data available to the regions. The major computer program development work continued to be the Ontario Modular Bridge Analysis System (OMBAS).

With the first phase scheduled for completion by late 1983, enabling publishing of the second edition of the Ontario Highway Bridge Design Code which will be available in late 1982.

Surveys Section

Section staff established and evaluated horizontal control survey monuments on the Ontario co-ordinate system — 509 monuments were established and evaluated in 1982. In addition, 116 horizontal control stations were established for construction; 311 precise bench marks on geodetic datum were established and added to the vertical control system.

During the past year, 1,033 legal

plans were examined and 550 km of highway designated as controlled access highway (total length now 7,154 km).

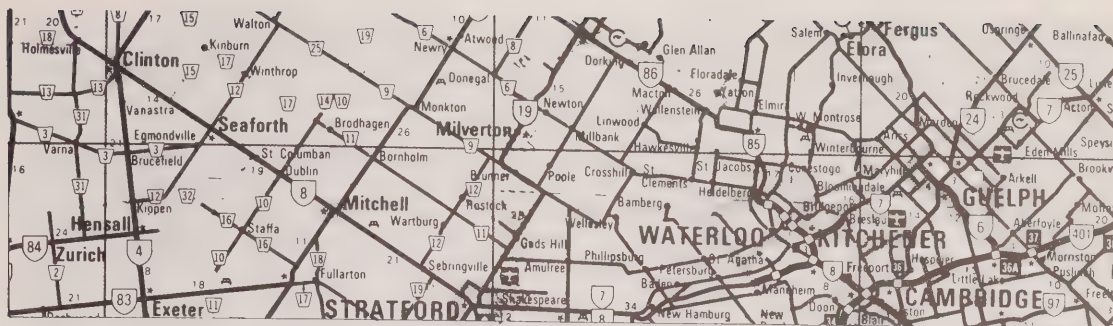
Training of staff continued with 16 candidates in surveying or drafting; nine candidates successfully passed qualifying exams.

Aerial Survey Section

Section staff delivered 177 photogrammetric engineering plans during the year, broken down as follows:

- Small scale 1:10 000 5m Contours
 - (a) In-house 23700 Hectares
32 Models 1 Plan
- Medium scale 1:2 000 2m Contours
 - (a) In-house 25560 Hectares
188 Models 42 Plans
 - (b) Consultants 3229 Hectares
23 Models 5 Plans
- Large scale 1:500 0.5m Contours
 - (a) In-house 3249 Hectares
416 Models 60 Plans
 - (b) Consultants 659 Hectares
97 Models 17 Plans
- Large scale 1:1 000 1m Contours
 - (a) In-house 508 Hectares
76 Models 2 Plans
- Large scale 1:500 Planimetric No Contours
 - (a) In-house 1957 Hectares
213 Models 39 Plans
 - (b) Consultants 425 Hectares
86 Models 10 Plans
- Measured Cross-Sections 1:500
 - (a) In-house 146 Models
40 km

To complete the above, 3,670 km of aerial photography was flown, for 40 mapping and 28 non-mapping projects; 23 oblique photography projects were also completed.



Cartography Section

Staff continued production work on the new Ontario transportation map series at scale 1:250,000 which will replace the present county/regional municipality lithograph map series at 1:250,000. The first three are scheduled for printing in the fall of 1982.

The 1982/83 official road map, the 1981/82 airport facilities map as well as 16 revised county/regional municipality whiteprint maps and a revised MTC region and district boundary map were produced.

In addition, the following requests were satisfied: 79 for cartographic services resulting in 283 base maps; 341 base film duplicates; 24 miscellaneous graphics; 18 for road information compilation; \$3,908 map base film sales to the public.

Remote Sensing Section

Staff continued with established priority projects, and two state-of-the-art reviews on remote sensing applications were privatized. Professional services continued to be provided, on request, to head office and the regions.

Under the aegis of the Canadian advisory committee on remote sensing, the second national workshop on engineering applications was conducted to formulate recommendations to the federal government on national programs.

Training in engineering applications of remote sensing was provided for MTC staff and other agencies with two one-week remote sensing seminars and the 6th Annual Remote Sensing Conference.

The section also provided aerial photographic mosaics and image library services to the ministry and others, 1,181 m² of mosaics and related products were produced and 1,804 requests for image library services were processed.

Highway Operations Branch

Contract Management Office

Staff is responsible for the preparation of final documents for the tendering of ministry contracts. It also provides the official interpretation and clarification to contractors during bidding stage. During the past year, 237 contract awards were processed.

It also has responsibility for development of new policies and procedures related to the contract management, manpower management, and staff training required for MTC construction activities. It also provides technical recommendations on those matters above regional authority. The major thrust for these policy matters includes:

- completion of a policy and method of introducing payment to contractors from plan quantities;
- changes to policies and procedures with respect to the quality assurance requirements during construction.

Environmental Office

Staff was responsible for the development and co-ordination of natural and cultural environmental policy, guidelines and procedures for MTC's programs and agencies.

During 1981-82, they were involved in providing interpretation and clarification of environmental assessment matters to the regional planning and design sections, the municipal office, the air office, the communications division, the Toronto Area Transit Operating Authority and the Urban Transportation Development Corporation.

With the Environmental Assessment Act, 1975, operational for several years, staff monitored its effects on ministry programs and modified internal policies and procedures. In

particular, a "one-state" submission approach was initiated for the ministry's projects requiring individual approval under the EAA in an attempt to eliminate time delays associated with the former two-stage submission process.

As part of ongoing environmental development activities, expertise and documentation was developed in such technical areas as noise, groundwater, erosion control, and environmental quality control for operational staff. The latter included presentations and programs on environmental sensitivity and awareness MTC's construction and maintenance staff.

Highway Design Office

Office staff was responsible for five major areas of highway design policy: corridor control; preliminary design; detail design; drainage and hydrology; and electrical design and development.

Corridor control section reviewed some 4,500 land development applications, developed and implemented provincial guidelines. Also, a provincial policy statement on highway access was prepared, which the Ministry of Housing will issue in conjunction with The New Planning Act.

Preliminary design staff developed a policy for shoulder paving on King's Highways, prepared a metric version of the commercial site access policy and standards manual; as well, initiating development of design standards for low traffic volume secondary highways. Also, 250 legal agreements for consultant assignments were processed and a number of policy directives prepared.

Detail design personnel initiated and updated procedures and guidelines pertaining to highway design; the refinement of noise barrier designs, and adaptation of a new energy-absorbing



Improved illumination system in the Thorold Tunnel

median barrier for pilot installation on an Ontario freeway.

Drainage and hydrology section people made progress on developing new technology for the drainage manual. Training and implementation in the regions was initiated. Assistance and participation was given to servicing the bridge code, and the urban and land drainage committees.

Electrical design and development section staff made progress toward completion of the traffic signal specifications. Design drawings were completed for 131 projects, of which 84 were prepared by consultants. Total construction cost was \$13,703,000. New technology for a variable lighting system was applied to 10 projects and provision for the freeway traffic management system were incorporated in 11 projects.

Maintenance Management Section

This section is responsible for establishing policies and procedures for general highway maintenance; the maintenance management system; and preparing operating instructions and quality standards for highway, structural and roadside maintenance.

During 1981-82, 79 private snowplows were used in place of MTC plows and crews, an increase of 35. Districts will attempt to hire 120 private plows next winter.

Twenty-one extra wide plows were used during the 1981-82 season. They clear a wider path than standards without wings, and operated by one person, resulting in a reduction of 42 staff.

Operating instructions were prepared and issued for routing and sealing of cracks, snow fence and snow hedge erection and location, winter pre-season preparations, and snowplow

complement calculations. These instructions improved the efficiency and productivity of patrols and crews.

New maintenance quality standards were issued for bridge inspection, treatment of obstructions at bridge sites, brush control at bridge sites, maintenance of bridge hand rails, erosion at bridge sites, bailey bridges and concrete sealing of structures to ensure uniform quality.

Eighteen winter maintenance training courses were given in nine districts to standardize maintenance procedures, ensure efficient and effective operations, and prescribed levels of service. A first line supervisor's workshop was also developed, designed to assist supervisors in dealing with personnel matters, the public, and government policies and procedures.

The working groups assigned to study the implementation of the operations management system, and its co-ordination with the maintenance management system made their recommendations. New input documents and reporting procedures were recommended; new reports; modification of others and elimination of some was recommended. The list of operation code numbers was modified. Testing and implementation of these recommendations will continue in the coming year.

Special Maintenance Services

Field test applications of pavement marking tapes were completed and the reports on their performance reviewed and evaluated. Subsequent recommendations will be made and a policy established for the use of these pavement marking materials by the ministry.

The conversion of our zone stripers fleet to a hot-paint operation continued with the conversion of four more standard striper to hot paint units. The ministry had 19 striper, 13 hot paint and six standard paint machines operating during the year.

A new raised pavement marker developed and produced in Canada was introduced by MTC. A number of these markers were installed late in the year. Their performance is being monitored.

The policy of decreasing the stripe/gap ratio of lane-line pavement marking on certain freeways was extended to include all multi-lane highways. Increasing the gap between the 3m stripes of the broken line pattern on this type of highway reduced the material cost of pavement marking with no significant loss in traffic-lane delineation.

The specifications for glass beads used to reflectorize our pavement markings were reviewed and revised to comply with those of AASHTO, i.e. a reduction in the percentage of true spheres, will greatly reduce the amount of energy used in their manufacture.

As a result of an extensive review of our sand storage dome building program and the availability of commercially fabricated domes, there was an increase in the number of such domes acquired by the ministry from the private sector.

Following recognition of the diminishing quality of the standard plywood used for highway sign manufacture, arrangements were made for a trial field installation of a new type of plywood material. Its performance will be monitored and a decision ultimately made as to its application.

Polyethylene material, because of reduced cost and good durability, was adopted as an acceptable alternative to metal for the manufacture of some construction signs.



An example of highway landscaping

Landscape Planning and Operations

During the year, considerable effort was expended in the study of erosion control. The seeding specification used in ministry contracts was completely re-written in an effort to improve the end result. This new specification incorporated all of the mulches into one document while taking into consideration seasonal differences across the province.

A draft directive on the implementation of the revised seeding specification was prepared and submitted to regions and districts for comment. The directive was re-written, incorporating the concerns and comments submitted, and was issued as policy.

A thorough review of the fertilizer used in the grass seeding operation was carried out to determine if changes could be made to improve the results. As a result the fertilizer analysis was altered reducing material costs, equipment maintenance costs, and energy needs for the fertilizer manufacture.

An extensive questionnaire was circulated to region and district staff, requesting data on the storage, decontamination and disposal of pesticide containers. A draft directive was prepared concerning handling of pesticide containers based on the replies received. Following a review of any further comments from the regions or districts a final directive will be issued.

In an effort to further privatize the landscape operations, a specification was prepared to carry out the maintenance of newly planted trees by contract. It will be tried on a site specific basis, and based on its acceptability in

the forthcoming season will be made available to all regions and districts requiring the service.

On behalf of the regions 36 landscape plans were prepared for completion in the spring of 1982. Three of these plans were completed by consultants. In addition, landscape planners contributed information on vegetation removals, selective clearing, natural regeneration, landscape concepts and aesthetics on a total of one hundred and five regional planning and design projects.

Three landscape contracts were inspected by landscape architectural consultant firms. A policy directive on landscape funding on capital construction projects is presently being prepared.

Estimating Office

Estimating office staff, operating with a complement of 25 prepared the official cost estimated on 291 contracts with a tender award value of \$286,336,388.40. Recommendations for award were made to senior ministry officials on 286 contracts and non-award on five.

Personnel also produced numerous construction cost comparisons, made recommendations for cost effective design alternatives, contract item unit price negotiations and provided preliminary project value estimates for the multi-year program.

Staff also developed direct energy consumption factors for roadway and bridge construction, as well as co-operating with the private sector and provincial and federal government departments in construction cost and quantity related matters.

Finally, they prepared annual reports on unit bid prices, cost-per-mile of

construction, equipment rental rates and minimum truck haul rates for internal use and outside agencies.

Electrical Maintenance Section

Electrical maintenance section staff carried out the following activities during the fiscal year.

- Conducted a study review of maintenance and operating costs for overhead sign illumination to determine a more economical method of illumination;
- Developed a policy directive provincial roads B-30 to provide lightning protection on traffic signal control equipment reducing damage to signal equipment;
- Revised policy directive provincial roads B-59, conversion of existing roadway lighting to high pressure sodium lighting to utilize lower wattage lamps for energy conservation;
- Co-ordinated electrical training courses with the Electrical Utilities Safety Association for district staff members to provide increased expertise in electrical procedures;
- Introduced the use of more efficient wattages for lamps in conjunction with roadway lighting luminaires reducing electrical energy requirements while maintaining lighting levels;
- Provided expertise to regional and district staffs on maintenance problems and procedures;
- Revised ministry policy to individually relamp luminaires on a maintenance requirement basis replacing group relamping systems, reducing maintenance crew activities and annual costs.



Repainting the white lines after a long winter

Equipment Engineering Office

Staff was responsible for evaluation of all the new models of vehicles introduced, and selecting the most appropriate models and features for use by this ministry. **Additionally, highly specialized equipment was evaluated and considered for use by MTC including:**

- Fourteen-foot Polymar power reversible plows, to reduce manpower and labour costs, required to open roads following snow storms;
- Diesel powered sander bodies and diesel powered half-ton vehicles, to reduce MTC's consumption of gasoline, and costs of providing essential services and maintenance;
- Class 101 Babcock-Allatt grader, for maintaining shoulders at minimum cost by downsizing;
- Paraplastic maintenance kettle by Crafco, for road maintenance crack filling, in an effort to increase productivity without increasing manpower in effecting road repairs;
- Self-propelled power sweeper by Timco, a new product on the market, evaluated for its applicability to the ministry;
- Heat treated and tungsten carbide snowplow blades, in a quest for maximum durability at minimum cost;
- A zone striper by Roadline International, a new product on the market, evaluated for its applicability to MTC; and,
- Front axle loading of snowplow tucks was launched, to improve the load distribution and reduce the associated maintenance costs.

The bubbling system (used to facilitate winter navigation by passenger ferry boats) was monitored for effectiveness, and correlated with the degree days of heating information available from the Dominion Bureau of

the Environment, to determine the submerged system's condition.

Zone striping operations were studied, to determine appropriate equipment requirements. It revealed the need for a re-evaluation of the appropriateness and adequacy of the traffic paint-purchasing procedures. As this aspect could most appropriately be determined on location, London district was asked to perform an in-depth study, currently in progress.

The acquisition of all replacement and additional equipment amounted to approximately \$7,800,000. Among the acquisitions were: 22 propane powered vehicles; 107 conversions from gasoline to propane power; 31 mini pickups; and, 21 fourteen-foot Polymar power reversible snow plows.

Three more zone stripers were converted to hot-paint operation, to increase the ministry's production capacity and further reduce the labour content. Special weedsprayer units were constructed to control the growth of weeds on the right-of-way. As well as killing noxious weeds, this process reduces labour costs of cutting roadside grass.

A hydraulic powered system of squeezing laminated bridge decks was built for use by the research branch, in a successful program to reclaim deteriorating wooden bridge decks. And a mobile bridge height clearance measuring device was developed and built by staff to determine bridge-clearance heights.

In conjunction with the research branch, a tire side force measurement vehicle was developed and built to be used by research to determine the side force a truck tire can stand in an effort to reduce truck-related accidents on highways.

Staff also developed methods for evaluating privatized equipment

repairs. Guidelines were prepared for district use.

User groups continued with development of the equipment management aspect of the OMS. The output working group completed its report, identifying data requirements at the various managerial levels, and the input working group worked on design on retrieval-of-information documents.

In a quest to obtain maximum benefit at minimum cost, and responding to the strategic policy guidelines, organization of a technical training centre took place. Additionally, staff resolved a number of technical problems and provided interim solutions until manufacturers were able to respond.

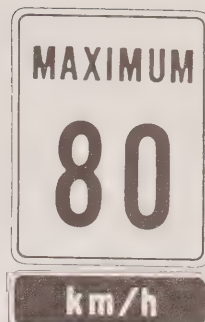
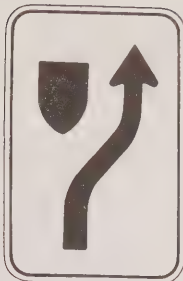
To guarantee a minimum of downtime, and optimum usage of MTC equipment, numerous courses were given to district mechanics and operators, as well as those of other ministries and municipalities. This enabled personnel to utilize and service the latest diesel and propane-powered equipment, latest air brake systems, and compressors.

Signs and Building Permits

Building permits issued by the 18 districts under the policy direction of head office totalled 1,663 with a value of \$405,625,751.

The number of field advertising permits issued was 7,533 valued at \$99,247; 2,601 guide sign permits were issued generating \$49,843 in revenue.

Other permits issued included 1,082 encroachment permits valued at \$25,640; 1,888 entrance permits valued at \$13,625 and 1,789 location, portable and temporary sign permits valued at \$33,905.



Traffic Engineering Office

Office staff developed policies, procedures, standards and specifications; provided technological leadership and carries out development of traffic signs and markings, signals, electronic control systems, freeway traffic management and traffic accident data and traffic analysis.

In traffic signing, new policies and sign standards included a "supplementary contract" sign to identify projects funded by BILD; diagrammatic freeway signs and signs for truck ferry service, bus terminals, and parking for handicapped.

Signs were also developed to promote proper use of paved shoulders on Highway 69, where drivers are encouraged to pull onto the shoulder to permit other drivers to pass. A new interchange numbering system on freeways was introduced, identifying interchanges by the kilometeric distance from one end of the freeway rather than by the previous consecutive numbering system.

New signs were developed to identify the Terry Fox Courage Highway, a designated 100-km section of Highway 11 and 17 between Nipigon and Thunder Bay. A new marker was developed to indicate accommodations which meet the criteria of the Tourism Ontario accommodation grading program.

Traffic data was collected for the purpose of reviewing the ministry's signal timing and capacity analysis methods and to revise the signal capacity chapter of the ministry's geometric design manual. New traffic signal warrants were introduced and their application will be monitored and assessed with respect to unwarranted signal installations. A new amber arrow signal indication was developed, as were standards and guidelines for its use.

Development and implementation of microprocessor-based traffic signal

controllers ("Model 170") continued. Approximately 100 were operated by the ministry as of March, 1982. A large proportion of these were manufactured in Ontario.

Development continued on monitors for the 170 system capable of detecting abnormal or conflicting signal indications, should they occur. The municipal traffic control systems (MTCS) project, initiated by MTC continued. This project involved the installation of computerized traffic control systems to standard specifications and capabilities. The systems in Brantford and the Regional Municipalities of Durham and Waterloo neared completion under a common procurement contract.

Oakville has purchased a similar system, for completion in 1982-83. Mississauga and London undertook feasibility studies of computerized traffic control signals, and MTC provided both technical and financial assistance on these projects.

In freeway traffic management, a new section was added to the office for this purpose, with major initial emphasis on implementing the proposed freeway traffic management system on Highway 401 through and adjacent to Metro Toronto.

It will include changeable message signs, vehicle detectors, computers, and closed circuit TV with remote control functions, and be used to improve conditions resulting from traffic congestion. It will also be used to provide accurate and timely information on accidents and incidents to the Ontario Provincial Police, to assist them in responding rapidly to accidents and managing traffic when they occur.

Further, the system will be able to provide current information on traffic conditions and advise motorists of construction and maintenance activities

likely to be encountered. Another project was initiated to examine the feasibility of implementing a freeway traffic management system on the QEW in the vicinity of the Burlington Bay Skyway.

The QEW freeway traffic management system west of Highway 427 in Mississauga was expanded westerly to include the Ford Drive/Highway 403 interchange in Oakville, an addition of four km to the previous 10 km.

Second phase of the developmental work for the traffic accident information system was completed. This is the culmination of several years of work which provided a computerized file of all reported traffic accidents on provincial highways for the past three years.

It provided the capability for accident data retrieval and analysis through terminals in head office and regional offices. This data storage and retrieval system, a major improvement over previous manual methods, provided information for traffic engineering studies, safety programs and research projects.

Staff administered and assisted in traffic analysis operations studies for Hamilton (Mountain), Leamington, Richmond Hill, Region of Waterloo, Chatham, Perth, Metropolitan Toronto, Sault Ste. Marie, Fort Erie, Dryden, Orangeville, Collingwood, Pickering, Burlington, Kapuskasing, Niagara-on-the-Lake and the Region of York.

Development work on microprocessor-based permanent (continuous) traffic counting stations with telemetry capabilities continued. The annual monitoring of vehicle operating speeds on provincial highways was also continued. To meet the needs of planning and research studies, specialized traffic data was gathered throughout the summer, with assistance of students.

Safety and Regulation



Artist's conception of new John Rhodes driver exam centre

Transportation Regulation Division

This division, was responsible for program administration, investigation and prosecutions, occupational health and safety and highway carrier licensing.

Staff provided as required, policy, procedures and training for drivers and vehicle field operations to ensure the uniform application and delivery of the driver examination, vehicle inspection, highway carrier, and MTC occupational health and safety activities. In addition PCV and PV licences were issued to the holders of operating authorities emanating from the Ontario Highway Transportation Board.

This division is made up of the Licensing and Control and Program Development Branches. In addition to the branches, the division assumed responsibility for planning and co-ordinating the work to restructure the Licensing and Control Branch and move about 40 per cent of its staff to a new government building in Kingston, scheduled for completion in 1983.

Investigations and Prosecutions Office

The Investigations and Prosecutions staff monitored the compliance of the highway carrier industry with applicable legislation and regulations.

Over the past five years, a comprehensive off-highway enforcement system was developed for the

conduct of in-depth investigations, requiring examination of all books, records and documents of carriers. Last year there was increased activity in the examination of licensed carrier's books, to establish if their operations were in compliance with the terms and conditions of their operating licences.

In the 1981-82 fiscal year, 1,463 cases were placed before the courts for contravention of the Public Commercial Vehicles Act, the Public Vehicles Act and the Motor Vehicle Transport Act (Canada). Approximately one-third involved purported leasing arrangements.

Investigations and Prosecutions office staff developed a comprehensive training program to enable personnel to teach all aspects of the knowledge required by an investigator. Training began in October 1980 to qualify enough investigators and supervisors to set up regional investigations and prosecutions offices covering all regions by the fall of 1982.

As a result, the first regional investigations and prosecutions office was established in S.W. region in September 1981, followed by the formation of an office in central region in October 1981. Establishment of an office in Eastern Region took place in May 1982.

All 10-province communications were further enhanced in September of '81 when office staff hosted an Inter-Provincial Conference in Toronto.

As a result, exchanges of information relating to investigations of for-hire carriage now takes place. Also

reciprocal arrangements to serve summonses, subpoenas, notices of hearings and joint investigations were created. Under this arrangement some 886 summonses were served by other provinces for and on behalf of Ontario.

As a result of a meeting in February of '81, with the regional director, Office of Consumer Protection, Interstate Commerce Commission, the undertaking to serve summonses and subpoenas on U.S. based operators was continued during the last fiscal year. A total of 224 summonses served by U.S. officials for violations under the MVTA (Canada).

Program Administration Office

Staff promoted the delivery of uniform drivers and vehicles programs to the public, provided policy directives, operation procedures, technical expertise and training courses for driver examination, vehicle inspection and highway carrier field staff.

Program administrators assisted the Transportation Regulation Operations Division in development of new or amended legislation, and co-ordinated implementation of new drivers and vehicles programs.

Ontario's driver certification program was monitored by driver certification officers working out of this office.

Highway Carrier Licensing Office

Staff was responsible for monitoring of Ontario Highway Transport Board certificates for compliance with the Public Commercial Vehicles and Public Vehicles Acts and the Motor Vehicle Transport Act (Canada); collection of revenue and the issuance of operating and vehicle licences associated with the Board issued certificates of public necessity and convenience.

During the past fiscal year, there were 4,764 certificates processed, 2,314 new and amended Public Commercial Vehicle and Public Vehicle operating licences and 68,903 vehicle licences and plates issued.

Occupational Health and Safety Office

Occupational health and Safety staff in head office and the regions, continued with the first stages of the hearing conservation program. To date 5,000 audiometric examinations have been completed and noise evaluations carried out in many areas.

A back care program was approved and all health and safety personnel trained to present it. To meet the increasing concerns of employees using video display terminals, OHSO undertook a study to determine the relative importance of the various ergonomic and environmental factors.

A comprehensive study of the Workmen's Compensation Board function within the ministry was carried out and recommendations made to streamline the clerical function and upgrade MTC's response to personal injuries.

In keeping with the increasing emphasis on prevention, particularly in health areas, OHSO completed planning for a pilot study dealing with the problems of smoking in the workplace. The ongoing programs in first aid training, hazard recognition, medical surveillance and environmental testing continued.

Vehicle Registration System Project

The detail design phase of the new vehicle registration system was completed and programming started. Manual procedures and operating manuals were being prepared.



Testing procedures and training packages were designed and an overall plan to implement the system was put in place. Terminal hardware was selected to provide on-line service to each license issuing office.

A contingency plan was implemented, allowing consideration of various fall-back positions should delays develop in any aspect of the system which might affect start-up presently scheduled for Dec. 1, 1982.

Licensing and Control Branch

Licensing Systems Improvement Office

Over and above monitoring the existing systems and initiating corrective action as required, this office was also responsible for the development of new and revised driver and vehicle licensing and control systems.

Current major project initiatives underway included the revamping of total driver systems (taking into consideration a planned move of a portion of the operation to Kingston in January, 1984) and developing a program-wide management reporting system.

Driver Licensing and Control Office

Day-to-day functions included driver licensing and post-licensing; maintenance and administration of the

demerit point system; maintenance of all drivers' records; administration of licence suspensions; reinstatement of driving privileges; and a review of all drivers known to have medical or physical conditions.

1981

Licensed Drivers	5,123,177
Male	2,939,036
Female	2,184,141
New Drivers	241,175
Demerit Point System	
Warning at 2 to 8	
point level	144,304
Interview at 9 to 14	
point level	35,099
Suspensions at 15 or	
more point level	8,084
—First 15 point	
accumulation	6,968
—Subsequent 15 point	
accumulation	1,116
Suspensions at 6 or	
more point level	
(Probationary	
Drivers)	1,139
Suspensions for physical	
or medical reasons ..	1,923
Suspensions for	
drinking and driving .	45,910



School buses carry 600,000 children each day

Vehicle Licensing Office

Eleven MTC offices and 310 appointed issuing agents serviced and controlled by the vehicle licensing office, completed a total of 7.4 million transactions including 500,000 new passenger car and truck registrations and 1.7 million permit transfers. Net revenue after agents' commission, expenses, and adjustments was \$302 million.

Vehicle Control Office

Staff were responsible for the maintenance of all vehicle registration records and the provision of relevant vehicle registration information. They responded to 1.7 million enquiries.

The automated system handled 4,000,000 passenger, 900,000 commercial, 106,000 trailer and 114,000 motorcycle and moped registrations totalling 5.1 million. The remaining 200,000 consisted of snow vehicle and annual registrations handled manually.

Reciprocity and Prorate Office

Reciprocity and prorate office staff administered Ontario's participation in the Canadian Agreement on Vehicle Registration (CAVR). Commercial motor vehicles and buses are registered in accordance with CAVR for operation in member provinces. In 1981-1982 British Columbia, Alberta,

Saskatchewan, Manitoba and New Brunswick implemented the agreement in conjunction with Ontario

1981 - 1982

Fleet Registrations

Plate 347

Host 477

Total 824

Registrations & Amendments (Additions or Deletions)

6,978

Registration Fees \$5,766,253.62

Administration Fees \$ 87,971.90

Personnel was also responsible for administering existing and negotiating new reciprocal agreements for commercial registrations between Ontario and other North American jurisdictions. During the year agreements were signed with the States of Washington and Michigan. Negotiations took place with a number of other states such as South Dakota, Illinois and Maryland.

Transportation Regulation Development Branch

Staff was responsible for the program and policy development, planning and evaluation services required for the management of the ministry's Transportation Regulation program. The branch includes: planning and evaluation; vehicle standards; safety co-ordination and development; truck transportation; bus transportation offices.

program activities with the ministry processes for strategic and long-range planning. Development of an effective measurement and evaluation process for these program activities continued.

Vehicle Standards Office

Personnel undertook investigation of potential changes to the existing policies and laws affecting drivers, vehicles, and the truck and bus industries. Work took place on a project basis and policy options were guided through various levels of approval.

Staff was also responsible for integration of transportation regulation

Planning and Evaluation Office

Personnel participated in the development of vehicle-related safety standards, legislation and regulations, and provided engineering expertise internally and externally in matters relating to vehicle design, safety standards and government control.

In addition, they investigated accidents in which vehicle condition may have been a contributory factor; recommended appropriate government action; and assisted the attorney general by providing expert witnesses at trials and coroners' inquests.



A truck inspection station on the QEW

Ontario Commission on Truck Safety

In October 1981, the Government of Ontario created the Ontario Commission on Truck Safety and appointed Dr. Robert Uffen the commissioner.

Assisted by a small informal advisory committee, Dr. Uffen is undertaking a thorough examination of all matters relating to the safety of trucking. Issues which relate primarily to economic regulation and the structure of the Ontario Trucking industry are not a part of the inquiry.

The commission scheduled a series of public meetings in eight major Ontario centres. Dr. Uffen's final report and recommendations are expected by the end of 1982.

Truck Transportation Office

In keeping with the ministry's move to modal responsibilities, this office was formed in December 1981. Previously named the highway carrier co-ordination office, it remained the single location within MTC where economic policies were developed in the field of truck transportation. Assistance was given to the prorate and reciprocity office in developing a new proposal on which bilateral reciprocity agreement with U.S. jurisdictions is to be based.

Staff continued to provide input into Canada-wide and international policies through participation in the various

committees and working groups of the Canadian Conference of Motor Transport Administrators (CCMTA).

The transportation pricing function remained as part of the office mandate. Besides providing transportation pricing input into other ministry areas, particularly the other modal offices, the office continued to conduct a small business consultative program which assisted small business enterprises with transportation problems. Section staff also issued a newsletter 10 times per year advising 9,000 transportation users in the province on changes and new information which was to their business interest.

Bus Transportation Office

It was the responsibility of this newly-created office to develop programs, policies and legislation concerning intercity bus transportation in Ontario.

Staff duties influenced activities relating to the province's intercity bus transportation system, promoted and ensured maintenance and development of responsive and efficient intercity bus services to meet the needs of the travelling public, bus parcel express customers for transportation within Ontario, and between Ontario and other jurisdictions.

During the 1981-1982 fiscal year, personnel acted as secretariat to the public vehicles act review committee, and was responsible for the implementation in July 1981 of the revised charter-trip regulations under the PVA recommended to the minister by the committee. Through the CCMTA, the office was also active in interprovincial

and federal deliberations relating to the intercity transportation of disabled passengers by bus.

Next fiscal year, it is anticipated the office will launch major policy development studies related to intermodal bus-rail relationships in the province's major travel corridors and to intercity bus services provided in small and/or rural communities.

Safety Co-ordination and Development Office

In support of the highway safety co-ordinator, staff carry out liaison work, strategic planning, and tactical development. Personnel provided assessment and advice on matters involving the government's approach to a highway safety target; fundamental principles, approaches and philosophies; safety outlooks and strategies; organizational tactics; program delivery tactics; and principles of road user motivation and behaviour. The office serves as secretariat to the interministerial safety planning group.

In support of operations of the transportation regulation program, staff conducted sub-program development planning, evaluation, and policy development, recommending specific safety initiatives and implementation and evaluation approaches. This office administered the secondary school driver education program and provided direction and liaison for the program's research and development support. Staff was also responsible for the validity and availability of accident data.



New tire regulations came into force during the year

Legislative Activity

Highway Safety

The Highway Traffic Act (HTA) was amended to provide increased measures of safety for the public: it allowed either owners or drivers of unsafe vehicles to be charged; changed standards for ramp-metering installations to make them more visible; prohibited passing on left shoulders of freeways and prohibited backing up on the roadway or shoulder of any highway divided by median strip on which the maximum speed is in excess of 80 km/hour.

An act relating to the transportation of dangerous goods was passed — to be implemented upon finalization of the required federal regulations.

The Motorized Snow Vehicles Act was amended to require drivers of such vehicles to stop when approaching or overtaking a school bus with flashing red signal lights.

Amendments were made to the regulations under the HTA to provide for: safety standards for vehicles used to transport physically disabled persons; a probationary driver licence program; minimum standards for load security tie down in the trucking industry; emergency parking only at selected locations of multi-lane highways.

Regulatory Reform

A number of changes were implemented during the year in the area of safety and regulation in

accordance with the government's thrust for regulatory reform.

For example, under the HTA authority to designate the spring load weight restriction dates was delegated to MTC's regional directors for King's Highway or highway in territory without municipal organization, and to the municipal corporation having jurisdiction over the highway to which the designation applies.

Several regulatory changes in the PCV Act included: removal of duplication of administrative procedures for milk transporters; permission for any PCV carrier to transport bulk fertilizer during the peak season; provision of flexibility for

agents of the Wheat Producers Marketing Board to transport its wheat; exemption of intercorporate trucking from provisions of the PCV Act.

Under the Motorized Snow Vehicles Amendment Act the value of reportable accidents was increased to \$400 from \$100.

Amendments were also made to the regulations under the HTA to allow a one-time registration fee for fire trucks; reduced brake-testing speeds to permit brakes to be tested on premises rather than roadways; expanded use of motor vehicle dealer plates; and to permit pick up trucks carrying camper units to take advantage of "personal use" registration fee.

PCV Act Review Committee

In May 1981, the minister announced the formation of a committee to review the PCV Act and to recommend new principles for the economic regulation of trucking in Ontario.

The committee is composed of 24 executive representatives of manufacturing, shippers, carriers, labour and government and chaired by the ADM Safety and Regulation who will report its recommendations by December 1982.

The objective is to update regulations first conceived in the 1920's, and make them compatible with the economic

and trucking industry prospects for the 1980's and 1990's. A new PCV Act should support manufacturing, encourage flexibility and productivity, and be forward looking, simple, sensible and enforceable.

By the end of the fiscal year, the committee had completed a seven-month overview of the industry and its prospects, and was moving in the direction of switching the focus of government regulation away from direct control of the quantity or number of entrants towards direct control of the quality (fitness) of market entrants.



A chemical spill

Dangerous Goods Transportation Office

Staff provided co-ordination and acted as the focal point for Ontario government agencies, responding to national initiatives in the area of public safety in the transportation of dangerous goods.

Personnel participated in development of uniform (national) regulations for transportation of dangerous goods under the auspices of the Canadian Council of Motor Transport Administrators (CCMTA) which will form part of the Canadian code.

During the year, staff assisted in, and completed development of Ontario legislation to complement the Transportation of Dangerous Goods Act, Statutes of Canada, Chapter 36. The Ontario Act received Royal Assent in December of '81 providing the basis for adoption of the Canadian code for on-highway transportation in the province.

Staff also developed and negotiated a federal-provincial agreement to

delineate jurisdiction and responsibilities for administration of the code. The agreement is being finalized for signing at the conference of the ministers responsible for Transportation and Safety, in Halifax, in September of '82.

Personnel also participated in seminars for shippers, carriers, and users of dangerous goods, sponsored by concerned Ontario industry associations, ensuring wide dissemination of information and awareness on the status and scope of the Ontario program, and furthered public safety.

Through participation in the inter-association task force on the transportation of dangerous goods, under the auspices of the Ontario municipal liaison committee, staff assisted Ontario municipalities in gaining an understanding of the federal and Ontario legislation, regulations and proposed associated legislative and administrative programs for ensuring public safety. The Task Force

concluded with a comprehensive and widely distributed report.

Staff also developed posters and a pamphlet to raise the awareness and ability of the ministry's on-highway personnel to recognize and cope with the potential special hazards they may encounter. This included exposure to dangerous goods in-transit on Ontario highways, weigh scales and safety inspection stations. Staff, also provided technical and program information to industry, the media, public and ministry highway carrier enforcement people.

Currently staff is developing a comprehensive plan to co-ordinate Ontario's program.

Individual program components, such as the Ontario Dangerous Goods Transportation Act, the Federal-Provincial Agreement, elements of the awareness program and the on-highway enforcement staff training program were used to serve as models for use by the other provinces.



CLASS 4 — FLAMMABLE SOLIDS

Finance and Administration



Clerical staff are the backbone of the ministry

Services Division

Computer Systems Branch

Branch personnel advised MTC management on potential productivity improvements through automation while managing the resources necessary to develop and maintain automated systems, including: skilled staff; consultants; computer services arrangements; terminals and distributed processing equipment.

Systems co-ordinators help program managers identify systems opportunities and carry out feasibility studies. Personnel also offered systems

development, maintenance and production services on a cost-recovery basis.

They were also responsible for development, monitoring and maintenance of MTC data processing policies, standards and procedures. Technology scanning in support of ministry and program strategic and long-range planning for automated information processing activities was a relatively new function.

Systems Planning Support

Office staff acted as an internal consultant to the branch and ministry in the areas of: technology scanning; strategic planning support; short and long range systems planning support; improved methods and techniques for systems development; standards and procedures in the systems development; standards and procedures in the systems area; systems quality assurance and performance measurement; and, distributed processing facility planning, tendering, implementation and maintenance.

Personnel also provided systems development and maintenance services

for the ministry's research and communications activities. In the research area, an industrial economic forecasting system was implemented to indicate how various government spending strategies might affect economic sectors.

In addition, a resource management system was developed to aid policy planning and research executives in managing their resources and projects. In the communications area, computer support was provided to independent telephone companies to aid them in market analysis, plant depreciation analysis and accounting.

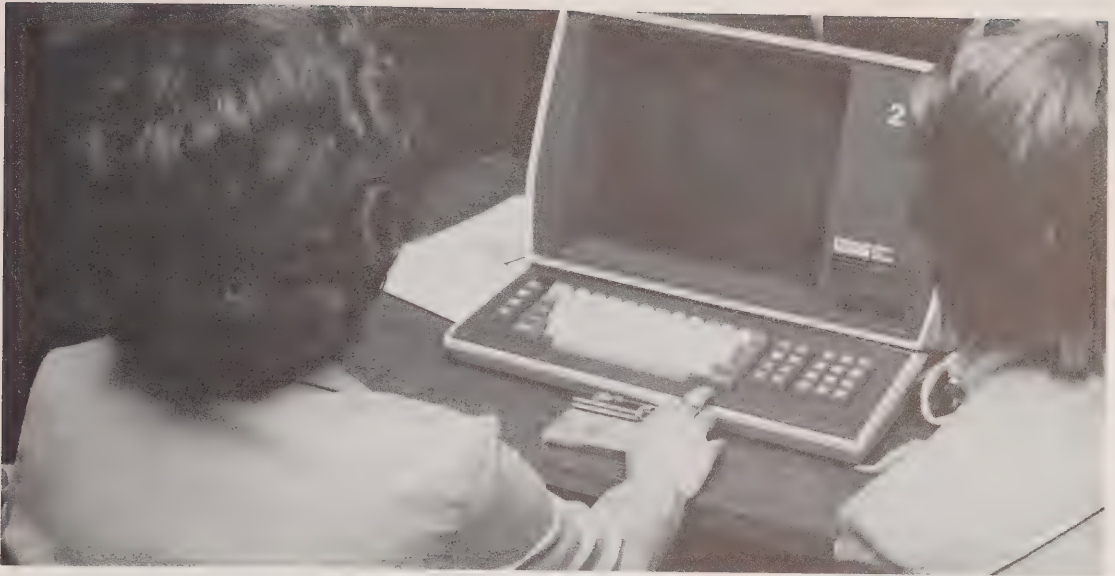
The Ontario communications information system continued to provide information on radio and TV facilities and audience characteristics to facilitate government policy deliberations.

Engineering Systems

About 50 operational systems were maintained in support of structural design, hydrology, road design and ministry transportation planning and traffic engineering activities — systems which supplement the production process in every facet of highway building and transportation planning.

Due to their universal application, several engineering computer programs were requested and given to other government agencies, municipalities and consultants to be run at local computer installations. The simplified transportation planning package was in use in most Canadian provinces and major projects completed were:

- Linear highway reference system which provided the common reference for the highway inventory, traffic volumes and traffic accidents;
- Ontario structures clearance and information system which provided the information for a reference manual, published annually;
- The road design system was enhanced with the following features:
 - traditionally intended for rural application, it can now be used for highways in urban areas, as well;
 - use of automatic plotters at the users' location in regional offices;
 - all data was displayed on screen "menus" and updated in a conversational mode with the computer if necessary.



Learning how to use the new VRS terminals

Management Information Systems Office

Personnel was responsible for development and support of systems which provided financial, administrative and operational data to MTC managers and staff. Some of the major systems included the operations management system, ministry financial systems, the performance budgeting system and the human resource inventory system.

The operations management system, which gathered much of the ministry's accounting information in the districts and regions, was modified to reduce system operating costs. A facility was added to capture the actual costs and work accomplished in highway maintenance.

Regional Liaison and Production Services

Staff was responsible for provision of the following services to all MTC users as well as municipalities and engineering consultants working on ministry projects: data conversion, technical control engineering and business plotting in support of operational MTC computer systems, security and back-up services for information and programs; acquisition and inventory control of peripheral computer equipment such as terminals, printers; system documentation library; and, liaison with the five regional offices in the area of operational systems needs.

Eighteen regional and district sites were in daily contact with head office at Downsview through a variety of data communication modes. MTC now has 560 computer terminals and this number increased rapidly.

Driver and Vehicle Systems

Staff from the two offices provided systems support for the safety and regulation program.

The former group supported the administration of the Ontario drivers system within the safety and regulation program. It was also responsible for minor support of system development for the Ontario Highway Transport Board, the Ontario Commission on Truck Safety, as well as internal and external research requests.

Most of the development activity concentrated around the restructuring and redesign of the drivers system to split the processing functions from a centralized environment in Downsview to one in which the input and error resolution procedures will mainly be done in Kingston.

Data base storage will remain centralized in Downsview as will much of the system reporting and all of the enquiry processing. It was the first phase of a major overhaul of the drivers system which could eventually see it become a distributed processing system providing a higher level of service to the general public.

During the past year, current driver record status was supplied through on-line enquiry facilities to thousands of visitors at the CNE who wished to review their own driving records.

Vehicle systems office staff continued to support the existing vehicle system. In addition, a

development team was provided for the Vehicle Registration System Project (VRSP) which will result in a new system to be introduced in December, 1982, with the following innovations:

- "Plate-to owner" concept where the licence plate stays with the owner and is transferred from an old vehicle to a new one;
- "Staggered renewals" where the licence is renewed on the owner's birthday;
- "Flat fee" where a fixed licence fee is charged within a vehicle classification, e.g. passenger cars;
- Denial of registration for owners who have unpaid parking tickets or issued NSF cheques to the Crown.

The VRSP will be operated through a computer terminal network serving every licence issuing agent in the province. The objective: to provide more up-to-date and accurate information to agents, owners, the police and the courts.

Legal Services

This office is a law office within the Ministry providing legal services to the Minister and MTC staff. The legal officers are members of the Ministry of the Attorney General's staff seconded to MTC and located at head office and in each of the regions.

Staff provide legal advice on all aspects of the Ministry's programs and prepare the legal documentation through which such programs are carried out.

Legal office counsel provide Ministry representation before many administrative boards and tribunals with which MTC comes into contact and conducts prosecutions for offences under the Ministry's statutes.

Supply and Services Branch

General Services Office

The Government repair garage at Bay St. (Toronto) was responsible for the maintenance of government-owned sedans used by cabinet ministers and senior government officials, as well as providing a chauffeuring service for cabinet ministers and visiting dignitaries.

Tenders section staff maintained strict security over all tenders. Approximately 5,700 were received and processed for 920 contracts while some 1,800 contractors/suppliers attended public-tender openings.

In advertising, some 320 insertions were placed in the news media regarding tender calls and public notices. Direct cash sales of contract documents, various construction related manuals and MTC's contract bulletin produced a revenue of \$94,000.

Instrument repair and test shop staff tested and repaired survey instruments and traffic recorders; conducted tests on some 2,000 components used in the 200-odd No. 170 microprocessors for traffic control, utilized throughout the province.

The accounting and asset control section was responsible for accounting functions for the repair garage and instrument repair and test shop; 3,100 work orders, valued at \$425,000, were processed. The moveable asset control system was purged of a large number of lower value items and now consists of 43,000 items.

Record Services Office

Staff were responsible for providing assistance to MTC and the Ministry of Northern Affairs (MNA) in the efficient handling of records and information.

Policy and procedures for record retention and disposal were developed to suit current information requirements, using a file classification system, microfilm and centralized storage and protection of vital records. Disposal of over 11,000 cubic feet of records took place.

Library services staff provided information and library resources for MTC and the transportation community; acquired all publications and subscribed to periodicals and newspapers. Other services included: reference services, computer searches,

interlibrary loans, publishing the "Library News" and "Journal Contents" a weekly announcement of Journals received. References exceeded 27,000.

Administration support section personnel provided office administration, typing and typesetting services for manuals and publications for a number of MTC offices. Control records for sale and distribution of publications and maps were also maintained while sales were routed through this office, regional and district offices.

An evaluation of the "Office of the Future" pilot project, set up in 1981 took place. This office provides administrative and clerical support services to the internal audit branch, special services office and Financial Management Office.

Additionally, word-processing services involving lengthy reports were provided for management improvement branch and transportation programs division.

New ergonomic applications to the office environment were introduced in the project, while personnel issues related to support staff concerns during transition to the new technology were addressed through the year and satisfactory response taken.

Impact of the project (i.e. services provided, productivity, benefits, user acceptance, etc.) will be assessed by senior management prior to any further extension of this concept within the ministry.

Purchasing and Supply Office

Purchasing section staff was responsible for the purchase of all construction and maintenance materials, and general ministry supplies, totalling about \$74 million.

The vehicles and equipment section acted in the purchase of vehicles and equipment through standardization of specifications and consolidated purchasing for all Ontario Government ministries and agencies. Here purchases totalled approximately \$44 million.

The stores section allowed MTC to take advantage of savings by bulk purchasing, also facilitating MTC's operational function by having materials available for later use. It also reconditioned and stored bailey bridge components for emergency use. Currently, there are 184 such installations in the province.

Field review and disposal office staff

facilitated the disposal of all used ministry equipment surplus material and all Ontario Government motor vehicles, via public auction or tender. Sales totalled \$2.9 million.

Graphic Services Office

Staff were responsible for the provision of a wide variety of commercial art, reprographic, offset printing and duplicating services in support of all ministry programs.

The graphic art and display section completed 234 requests for commercial art designs, (over 3,200 singular items) and participated with a display at exhibitions located in Thunder Bay, Ottawa, London, Peterborough, Kitchener, Lindsay, Simcoe, Kingston and Owen Sound. In addition, displays were provided for various functions at Queen's Park, the International Trade Centre, the Sheraton Centre and CNE.

More than 20,270 requests for reprographic services were processed for the provision of high quality, black-and-white and colour reproductions using photographic, diazo, screen processing and rapid turn-around photo copy methods. Approximately 17.3 million impressions were produced in the offset reproduction facility.

Administration of the MTC and MNA identification-card issuing program is also a responsibility.

Special Services Office

Staff were responsible for administration of a capital building program involving major building and space requirements, including office furnishings and equipment at head office, regional and district headquarters. They were also responsible for the provision of accommodation, telecommunications, office automation development services, postal services and instrument repair within MTC and administration of service centres on controlled-access highways.

Construction of the John Rhodes Driver Examination Centre neared completion while numerous projects involving new equipment installations were undertaken at head office, regional and district headquarters.



New police vehicles ready for delivery to OPP

Other areas of involvement included staff safety and building security systems, building refurbishing and maintenance.

A major proposal was approved in order to free up space for the expansion of the main computer facility. This was resulted in the redesign of approximately 8500m² of office space involving some 500 employees.

Service Centres

Twenty-three service centres were in operation during the past year, nineteen on the MacDonald Cartier Freeway (401) and four on Highway 400. Revenue derived from the locations exceeded \$4,900,000. Facilities and services, available at the centres on a 24-hour basis, included restaurants, washrooms, public telephones, first aid, fuel and lubricants, emergency towing, repair services and 21 picnic rest areas.

The upgrading of facilities for handicapped persons was completed at all service centres, providing access to all essential services such as parking, washrooms, restaurants, telephones and water fountains.

Outdoor information facilities were maintained at two centres, enabling the motoring public to access basic travel, lodging and local points of interest information on a 365-day 24-hour basis. Full service information booths were operated at 18 centres from mid-June up to and including the Labour Day weekend.

Over 500 individual inspections were conducted at ministry-affiliated service centres. This program provided coverage on all holiday weekends and most regular weekends. The co-operation of site management and staff resulted in a low level of customer complaints during the 1981-82 fiscal year.

The instrument repair and test shop provided a service to all regions, districts and head office staff. Staff was responsible for the repairs of

sophisticated survey instruments, volume traffic survey recorders and miscellaneous electronic equipment. An evaluation was also carried out on these items prior to purchase. A charge-back system was initiated and recoveries were in excess of \$200,000.

Tele-Communications

Telecommunication projects of a major nature initiated or reaching various stages of completion in the past year included multi-channel radio systems for Sault Ste. Marie (50 per cent completed), New Liskeard (90 per cent completed), Owen Sound District radio system survey (60 per cent completed).

Consulting and evaluation services were provided to 15 townships province-wide relative to the acquisition of ministry-subsidized mobile radio systems.

Negotiations with Ontario Provincial Police were conducted and a joint-use agreement on nine tower sites was approved for completion of the MTC Sault Ste. Marie radio system.

With regard to telephone communications facilities, an experimental interconnect electronic-key system was installed on the 6th and 7th floors of the West Tower at Downsview as part of the Office of the Future pilot project; initial evaluation showed a good level of satisfaction and acceptance by users.

A large number of telephone system re-configurations was completed for various branches at Downsview and Queen's Park and work related to telephone systems completed in various district and regional offices province-wide.

A new telephone system was installed in Bancroft District office utilizing MITEL 200 solid-state equipment that provided highly satisfactory with a high degree of user enthusiasm.

Again, the promotion of teleconferencing systems continued and an

increase in frequency of use of the existing system was noted.

The last of the non-directional aeronautical radio beacons was installed at Webique (remote northern airstrip) and all further installations have been cancelled pending take-over negotiations with Transport Canada.

A notable increase in the installation of data circuits and computer-associated terminals took place and experimental circuits for colour video-conferencing were installed in the West Tower at Downsview.

The number of telecommunication work orders processed and completed during the year totalled 607.

Staff were also responsible for inventory control relating to the retrieval and distribution of ministry-owned office furniture and equipment.

MTC Mail

Personnel were responsible for incoming and outgoing mail handling, courier mail service to all regional and district offices and Downsview teletype centre activities. The handling of a heavy volume of licence plates, permits, drivers' licences and returned licence plates was also a responsibility.

Volumes of mail reached were: outgoing mail, 1,758,106; incoming mail, 3,906,985; teletype messages, 177,987; orders processed, 43,003.

Personnel in the material control unit were responsible for handling moves, deliveries of supplies, furniture, etc., processing orders and updating bulletin boards.

Volumes were: moves, 1,547; processing order, 145,314; deliveries, 3,358; bulletin boards, 2,657.

Administrative improvement section staff conducted 18 word-processing feasibility studies; 13 of the client areas completed the "implementation stage." The remaining five areas will complete implementation stage next year. Post-study involvement included selection and acquisition of word processing equipment, client training and the development and implementation of



Downsview headquarters

applications commensurate with client requirements.

The "applications development" stage of this process was designed to assist client areas in the development of time-saving applications utilizing word-processing equipment. One such area was the word-processing/Telecommunications facility installed in five MNA regional offices.

This application was designed to speed up the paperflow, reduce proof-reading and decrease the turnaround time of ministers' letters. A total of five client areas have completed the "applications development" stage.

The Office of the Future pilot project was supported by the administrative improvement section, through the development of operational standards.

Property Office

Policy and procedures for appraisal techniques, acquisition of property, the rental, management and disposal of surplus lands and the quasi-legal aspects of the purpose of real estate in the title-searching and conveyancing functions are developed by this office staff.

Using guidelines, personnel in five regional offices negotiated 939 amicable property settlements while the ministry expropriated 251 properties to obtain title for land required to permit contracts to proceed. To ensure proper policies and procedures the office carried out two audits in each of five regional offices and, in addition, provided technical expertise when requested by regional staff.

Staff also had responsibility for resolution of all outstanding claims which may proceed to the Land Compensation Board for arbitration. The ongoing caseload involves about 85 properties with decisions handed down, or negotiated settlements procured in about 22 during the 1981-82 fiscal year.

Another major responsibility is to monitor and review property appraisals carried out by regional staff and fee appraisers. This involved some 178 desk reviews of which 35 were arbitration files. An additional 105 field

reviews were carried out of which 20 were regional files, 35 were arbitration files and 50 were reviews of staff appraisal reports.

The ministry expended \$17,179,400 in payment of compensation in acquiring title to lands required for highway projects. An additional \$564,627 was paid to owners affected by expressways, subject to cost-sharing agreements between MTC and involved municipalities.

Revenue of \$5,397,874 from the sale of surplus lands and \$668,023 from leasing properties was received by the ministry.

The ministry's formal training program consists of courses involving appraisals and negotiations in which both MTC and MGS participated. In all, 57 staff members from these ministries attended the semi-annual advanced appraisal course.

Internal Audit Branch

Branch staff was responsible for MTC's audit activities and is also the appointed auditor-of-record for the Ministry of Northern Affairs. Under the general direction of the Deputy Minister, staff was segregated into the following three areas of responsibility to accommodate this function: operational audit, engineering audit, project and EDP audit.

reviewed and approved supplemental estimates of cost, which required audit certification prior to ministry approval; and sundry payment certificates to ensure validity and accuracy. Staff also lectured at various construction technical courses as well as conducting in-house training programs for development of engineering audit staff.

Throughout 1981-82, staff also performed special assignments, answered queries and provided assistance on engineering-oriented matters where their particular expertise was required. They also attended various meetings related to development and revision of construction specifications, standards and procedures.

Engineering Audit Office

This office, with staff located in five regional offices and head office, is responsible for auditing expenditures on ministry-owned and subsidized contracts.

Regional offices reviewed and analysed the adequacy of payment records for compliance with governing specifications, standards and regulations.

At head office, claims and design section staff was engaged in the auditing of ministry and contractors' records related to engineering claims in association with the engineering claims office. Values ranged to a high of \$800,000. In addition, they analysed MTC contract price negotiations and conducted design audits to ensure adherence to the ministry's requirements.

Head office staff in payments and procedures groups, audited data in support of final ministry payment on capital and municipal contracts;

Operational Audit Office

Personnel were engaged in the expenditure, revenue and operational review of the ministry's 18 district offices, five regional offices and head office administrative units, as well as some 300 private licence issuing agents throughout Ontario.

Staff also performed audits in municipalities throughout the province dealing with MTC-subsidized road, transit and municipal airport expenditures.

This function extended to cover such agencies as Toronto Area Transit Operating Authority (GO Transit), Ontario Telephone Services

Financial Planning and Administration Branch

Financial planning and administration branch personnel recorded, monitored and controlled ministry expenditures and revenues, in addition to providing advisory assistance and information for the management of financial matters. It acted as the liaison between MTC and central agencies, other arms of government and the public, in the area of finance and accounting. To carry out these responsibilities staff is divided among the four offices listed below:

Budgetary Planning and Control Office

Office staff were responsible for acting as a liaison with Management Board of Cabinet, Ministry of Treasury and Economics, other central agencies and for planning, evaluating, developing, controlling and analysing MTC's budget. It consists of three sections:

The budgetary development section was primarily involved in acquisition of funding and staff to produce MTC's annual expenditure budget. It co-ordinated preparation of the expenditure and revenue estimates submission, represented the ministry throughout the resources allocation process and developed the MTC's request for personnel and financial requirements in the ensuing fiscal year.

The budgetary control and analysis section personnel monitored expenditures and revenues, identifying deviations and developing financial options for resolution. It also provided support to program committees and program managers in the in-year management of financial resources.

Budgetary planning and evaluation

section staff co-ordinated integration of the MBRs concept with MTC's existing management processes.

Financial Systems Office

Because of continuing financial constraint, it has become important that ministry managers have effective financial tools for evaluating current expenditures and forecasting future expenditures. It was the task of this office to assist in development and implementation of effective management of financial resources related to long-range planning, resource acquisition and allocation, financial analysis and evaluation, in-year monitoring and control, performance assessment and financial information and reporting. Office staff provided expertise in both computer systems and manual process fields to accomplish these objectives.

Chief Accountant's Office

This office was responsible for all those functions usually associated with a large accounting organization, e.g. payroll, accounts payable and receivable, maintenance of financial records and preparation of financial statements. **There were three key areas of responsibility:**

Expenditure office staff developed operational policies and procedures related to accounts payable, expense accounts, payroll and subsidies. It maintained and utilized procedures for

the issuing and distributing of payroll cheques, processing of accounts payable data for the issuing of treasury cheques and the provision of expenditure information. It also monitored expense account data to ensure compliance with regulations and the provision of statistical information.

Personnel from the revenue control office developed operational policies and procedures related to revenue accounting and cost sharing. It processed and recorded accounts receivable data, funds and reconciles local bank accounts and monitors submission of funds to treasury.

Staff also established accounts receivables for shareable agreements made by the ministry, compiled, prepared and distributed all statistical financial documents related to MTC activities.

Accounting and Administration, head office staff provided a regional accounting function for all head office cost centres and MTC agencies, as well as the Ministry of Northern Affairs.

Qualification Control Office

Office personnel maintained and used procedures to ascertain contractors' abilities to meet ministry prequalification standards, initiating, developing and implementing improvements in methods of prequalification criteria and ratings and monitors claims made by contractors and their resolutions. They also mediated between sub-contractors and prime contractors on claims made under the MTC Creditors Payments Act.

Commission and Ontario Highway Transport Board, as well as specific programs concerning expressways and connecting links. During the fiscal year, audit procedures were also carried out on behalf of the Ministry of Northern Affairs, including the Ontario Northland Transportation Commission.

Project & EDP Audit Office

Audits of a complex and contentious nature were performed at the offices of crown corporations, utility companies, contractors, consultants, suppliers and the offices of various other private enterprises. They were performed against records relating to engineering

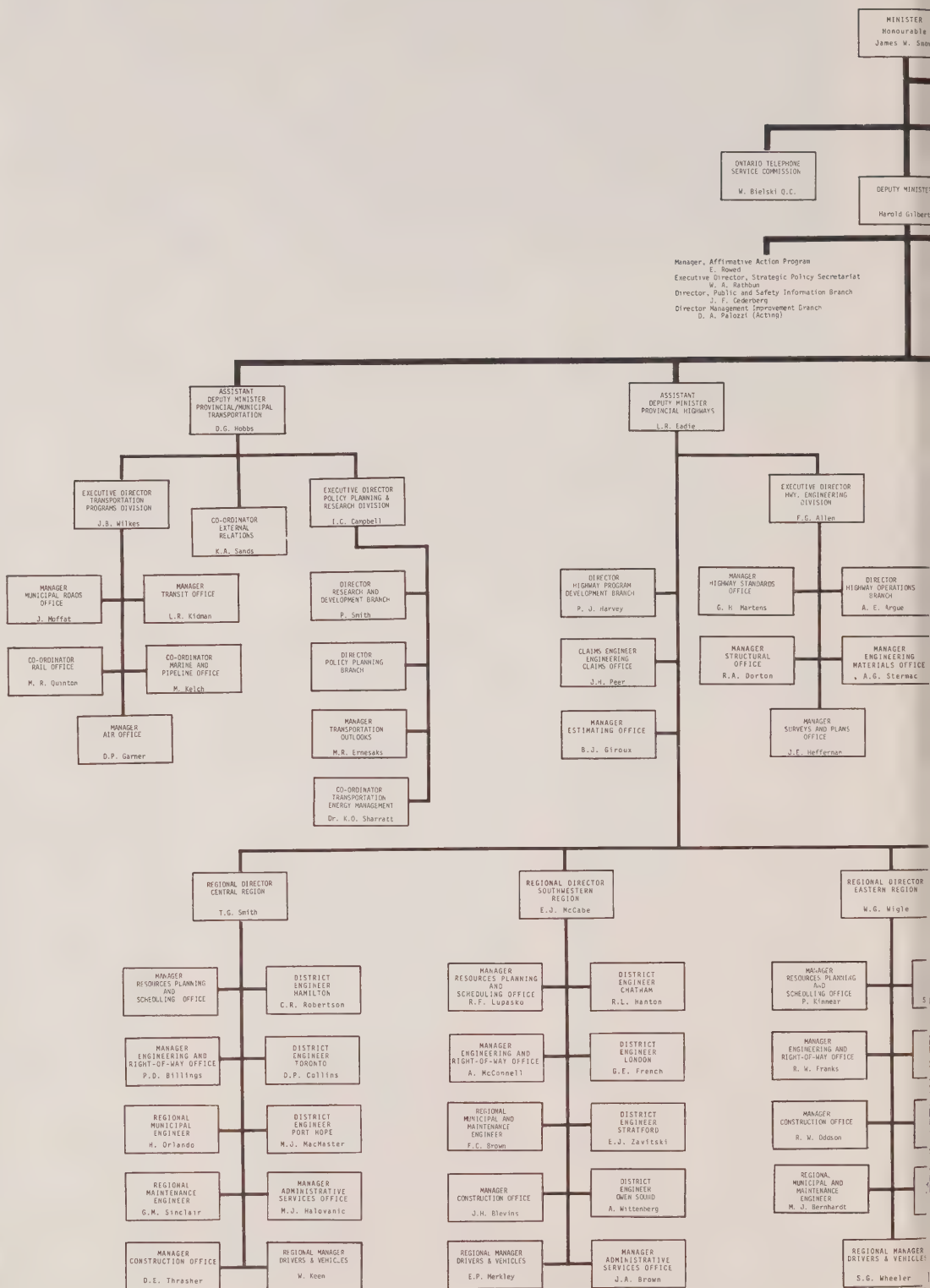
claims from contractors, claims from crown corporations, extra costs on contract work, utility relocation charges, and special agreement work.

Major project audits were performed on the expenditures incurred by Urban Transportation Development Corporation on behalf of the development of light rail transit technology and hardware systems and the cost records of Canadian National Railway for the relocation of the proposed intermodal terminal in the Malton/Brampton area.

A number of audits of records of private enterprises were carried out as requested. Services were also provided to supply statistical information obtained from private enterprise to MTC personnel for the updating of material used in ministry contracts and agreements.

In 1981-82 staff also developed a comprehensive risk analysis of all MTC production computer systems. Some 100 active applications, in the various areas — financial, management control, planning, drivers/vehicles, engineering and communications — were identified and evaluated. This, together with further analysis of new systems, forms the basis of the long term ADP audit plan.

Two major computer systems, unclassified payroll, progress payment certificate, were also reviewed. In addition, the section also reviewed and commented on the development of new systems; vehicle registration (VRSP), driver study (DSRP) and operations management system.





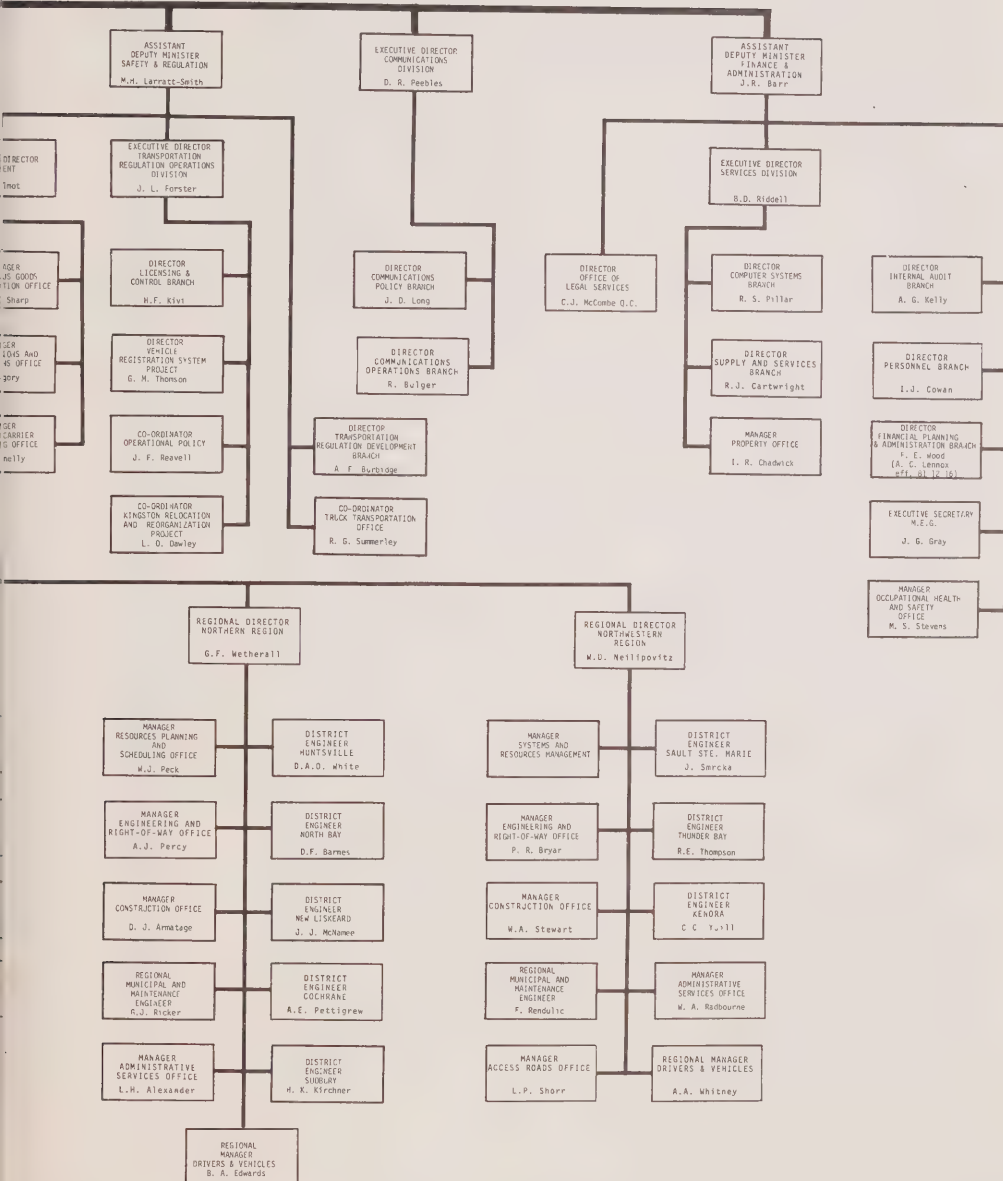
Ministry of
Transportation and
Communications

PARLIAMENTARY
ASSISTANT
Robert Eaton, M.P.P.

TORONTO AREA
TRANSIT OPERATING
AUTHORITY
L.H. Parsons

ONTARIO HIGHWAY
TRANSPORT BOARD
B.B. Alexander Q.C.

Strategic Policy Committee



CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1980	1981
7	Fail to register a vehicle	4,860	4,581
9(1)	False statement	77	75
9(2)	Fail to notify new address	2,380	2,009
10	Fail to have number plates	21,270	15,068
12	Violations as to number plates	4,211	2,959
13	Improper use of number plates	735	799
18(1)	No driver's licence or improper class	19,358	20,292
18(3)	Driving in breach of condition	0	409*
19	Fail to produce operator's licence	24,822	23,576
21(1) a,b,c,d,e	Driver licence violation	0	508*
22	Drive suspended in Ontario — Licence out-of-Province	0	19*
23	Operation of motor vehicle by person under 16	140	143
24	Driving motor assisted bicycle under 16	0	5*
30(2)	Unlawful possession of permit	22	14
30(3)	Unlawful possession of licence	181	118
35	Driving while licence is suspended H.T.A.	192	8,341
41	No garage licence	26	6
42	Record of wrecked vehicle violation	44	13
44	Improper light	11,099	11,056
46	Defective brakes	1,597	1,692
48	Faulty equipment (mirror, windshield, etc.)	475	445
52(1)	Defective — improper tires	0	41*
52(2)	Improper attachment on wheels	0	15*
55(1) a & b	Driver view obstructed	386	619
55(2)	Colour-coating obstructing view	0	108**
55(3)	Obscured interior colour-coated windows	0	419**
56(1) a & b	Windows obstructed	1,002	1,189
57	Excessive noise/smoke/fumes	22,020	18,176
58	No slow-moving-vehicles signs	86	62
61(2)	Radar warning device prohibited	797	754
62	Fail to have proper trailer attachments	919	1,027
65(2)	Unsafe vehicle	0	5
65(3)	Failing to submit to vehicle inspection	1,645	1,431
67	Drive unsafe vehicle	4,369	3,192
68(1)	Operate vehicle — fail to display device	0	835*
69	Affix vehicle inspection sticker not MTC issue	0	5*
71	Certificate of mechanical fitness violation	147	41
87	No name of owner on commercial vehicle	1,416	1,086
88	Drive/ride motorcycle no safety helmet	1,807	2,005
90(2)	Remove/modify/inoperative seat belt assembly	858	1,086
90(3)	Failure/improper use seat belt assembly — driver	51,744	67,242
90(4)	Passenger — failure to ensure seat belt use	7,640	9,307
90(6)	Driver — failure to ensure passenger seat belt use	404	622
92(1)(2)(5)(6)(9)	Excessive vehicle width/length	0	637*
93(7)	Special permit violation	1,808	1,700
93(1)	Overload in excess of permit	30	34
93(2)	Fail to produce commercial ownership permit	195	65
93(4)	Spring Regulations — Overload	1	18
94(1 & 2)	Overhanging load/improper loading	1,678	1,982
98(1) (1b)	Overweight — tires	0	9*
99(1)a	Overweight — Single axle (single tire)	0	120*
99(1)b	Overweight — Single axle (dual tires)	0	1,566*
99(1)c	Overweight — Dual axle	0	8,312*
99(1)d	Overweight — Triple axle	0	250*
99(2)	Overweight — Dual axle (single tire)	0	1*
99(3)	Overweight — Triple axle (single tire)	0	54*
99(4)	Overweight — Single front axle (no verification)	0	1*
99(6)	Overweight — Single front axle (exceed rating)	0	4*

*New method of recording in 1981

**New offence 1981

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1980	1981
100(a)	Overweight — Two axle group	0	58*
100(b)	Overweight — Three axle group	0	103*
100(c)	Overweight — Four axle group	0	47*
101(1)	Gross vehicle overweight	0	1,949*
101(2)(3)	Fail to produce/violate authority	0	13*
102(3)	Overweight during freeze-up	0	148*
103	Overweight on axle Class B highway	0	6*
104(1)	Overweight in excess of permit	0	4,069*
104(2)(5)	Fail to carry produce permit	0	1,508*
104(7)(8)	Overweight — March/April	0	127*
109	Speeding 50 km/h or more over the limit	12,046	10,326
109	Speeding more than 29 less than 50 km/h	98,175	94,221
109	Speeding more than 15 less than 30 km/h	297,554	293,806
109	Speeding under 16 km/h	378,509	384,088
111	Careless driving	20,510	19,358
113	Unnecessary slow driving	154	189
114	Fail to obey signal of police officer	304	365
115	Fail to yield right of way	172	213
116	Fail to stop at through highway	49,634	53,267
118	Fail to obey yield sign	595	716
119	Fail to yield — from private road	6,153	6,465
120	Pedestrian crossover violation by driver	4,900	4,538
121(1)	Improper right turn at intersection	2,315	0*
121(2)	Improper left turn at intersection	4,224	0*
121(3)	Improper left turn into intersecting highway	3,596	0*
121(4)	Improper left turn from one-way highway	1,190	0*
121(5)	Improper left turn into one-way highway	221	0*
121(6)	Improper left turn from one-way highway to one-way highway	661	0*
121(1)	Improper right turn	0	58*
121(2)	Improper right turn at intersection	0	2,729*
121(3)	Improper right turn — multi lane	0	4,827*
121(4)	Improper left turn — across path of approaching vehicle	0	4,510*
121(5)	Improper left turn at intersection	0	3,412*
121(6)	Improper left turn — multi lane highway	0	1,294*
122(1)	Fail to signal for turn	13,450	12,962
122(2)	Fail to signal-moving from parked position	3,109	3,225
122(4a) (4b)	Improper manual signal	1	8
122(5)	Improper directional signal	63	49
122(6)	Improper use of signaling device	82	82
122(7)(7a)(7b)	Fail to signal	109	102
123	Prohibited U-turns	328	238
124(5)	Disobey red signal light	45,165	48,364
124(7)	Disobey amber light	12,032	12,814
124(8)(9)(10)(11)	Flashing red-amber-green arrow	2,234	2,446
124(12)	Fail to give right-of-way to pedestrian	890	825
124(13)	Prohibited turn	23,478	23,705
124(25)	Disobey traffic signal	2	0
125(3)	Disobey portable lane control signal — red light	289	98
125(4)	Disobey portable lane control signal — amber light	73	28
126	Drive right side of multi-lane highway	265	257
127(1)(2)	Fail to share the road	2,216	2,289
127(3)	Fail to move to right	151	174
127(4)	Vehicle or horsemen overtaking others	394	450
127(5)	Horsemen or vehicles overtaking bicycles or tricycles	23	32
127(6)	Improper passing	24	30
127(7)(a)(b)	Improper passing	1,313	1,270
128	Driving left of centre of highway	1,664	1,651

*New method of recording in 1981

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1980	1981
129(1)	Passing to right of vehicle	27	26
129(2)	Unsafe passing to the right	3,480	3,155
130(1)	Fail to obey signs posted on paved shoulder	0	501**
132	Wrong way on a one-way street	6,495	5,766
133(a)	Unsafe lane change	5,773	5,676
133(b)	Drive in centre lane of three lane highway	176	210
133(c)	Fail to drive in slow moving traffic lane	3,988	4,472
135(a)(b)	Improper driving on divided highway	987	863
136(1)	Following too closely	15,645	15,409
136(2)	Following too closely in commercial vehicle	432	446
137(1)	Fail to yield to fire department vehicle, etc.	299	385
137(2)	Following a fire department vehicle	22	13
140	Crowding driver	383	678
141	Fail to stop for crossing (signal)	193	211
142	Drive through under or around railway barrier	202	289
143	Improper opening of vehicle door	384	293
144(1)	Improper approach or passing a stopped streetcar	167	130
144(2)	Pass streetcar on left side	40	29
145	Improper driving when approaching animals	0	2
146	Fail to use passing beam	1,143	1,049
147	Improper parking on highway	1,023	777
147(8)	No warning lights on commercial vehicle	14	32
147(9)	No flares	16	37
147(10)	Vehicle interfering with traffic	643	885
148	Racing	127	117
150(b)	Failure to stop school bus or public vehicle at railway crossing	18	26
151(5)(5a)(5b)	Fail to stop for school bus	2,615	2,260
151(6)	School bus: Fail to actuate signals	25	23
151(9)	Unlawful use of red signal lights on school bus	5	4
151(11)	School bus: Failure to cover signals and signs	19	21
152(3)	Fail to obey school crossing stop sign	91	128
156	Littering highway	1,541	1,223
159(2)	Fail to obey a direction sign	4,065	4,436
173	Fail to report an accident	3,468	4,166
174	Fail to remain at the scene of an accident	2,747	2,403
175	Fail to report damage to highway property	768	762
189a	Fail to stop for police	0	14**
	Others	32,773	17,042
	TOTAL	1,268,653	1,293,706

**New offence 1981

SUMMARY OF CONVICTIONS

Criminal Code	56,500	51,911
Highway Traffic Act	1,268,653	1,293,706
Regulation H.T.A.	12,253	11,171
Municipal Bylaws	20,349	29,204
Motor Vehicle Accident Claims Act	3,865	52
Compulsory Automobile Insurance Act	16,480	21,718
Public Commercial Vehicles Act	8,835	4,438*
Public Vehicle Act	0	2
TOTAL	1,386,938	1,412,202

*New method of recording in 1981

REGULATIONS UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1980	1981
484	School bus violation	5	51
469(14)(15) (16)(17)	Number plate violation	998	590
462(4)	Motorcycle violation	668	690
462(13)	Classified licence violation	312	221
462(19)	Fail to notify name/address change	4,052	2,637
462(20)	Fail to sign licence	0	761*
469(21)	Only single beam headlight	46	23
477(4)	Improper parking	89	144
494(2)	Prohibited use of studded tire	118	208
	Others	5,965	5,846
	TOTAL	12,253	11,171

CONVICTIONS REGISTERED UNDER THE CRIMINAL CODE (CANADA)

SECTION	OFFENCES	1980	1981
203	Criminal negligence causing death	16	20
204	Criminal negligence causing bodily harm	8	9
233(1)	Criminal negligence	141	155
233(2)	Fail to remain	2,060	2,097
233(4)	Dangerous driving	1,782	1,802
234	Drive ability impaired	18,944	21,099
24.1	Roadside	242	288
235(2)	Fail to take breathalyzer	3,035	3,450
236	Over .08 alcohol	20,593	22,219
238(3)	Drive while disqualified	9,679	772
	TOTAL	56,500	51,911

*New method of recording in 1981

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

SECTION	OFFENCES	1980	1981
2(1)	Drive or permit to drive unregistered vehicle	13	125
2(2)	Fail to register	5	0
2(3)	Fail to provide evidence of issue of permit (no plate)	3	0
2(7)	Fail to display registration number	64	148
2(8)	Fail to display evidence of permit	119	242
3(1)	Make false statement	2	11
3(2)	Fail to notify change of address	5	5
3(3)	Fail to notify change of ownership	6	0
4	(Plate) — Registration number obstructed	0	0
4(2)A & B	Use defaced or altered plates	0	0
4(2)C	Improper plates	0	0
5	Drive on prohibited highway	35	55
6(2)	Drive in area not designated	0	6
7	Improper crossing of roadway	1	0
7(1)	Person under age 16 drive on highway	0	0
7(2)	Permit person under age 16 to drive on highway	0	0
7(3)	No driver's licence	0	0
7(5)	Permit unlicensed person to drive	0	0
8(1)	No operator's licence	39	23
8(2)	Drive across highway no licence	7	5
11(1)	Operate (or permit operation) uninsured vehicle	115	219
11(2)	No insurance	0	0
11(3)	Fail to produce evidence of insurance	28	15
11(4)	Produce false evidence of insurance	1	0
12(1)	Fail to report collision	6	20
12(2)	Police officer fail to forward report of accident	1	0
13(1)	Speeding	9	26

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

13A	Careless driving	15	44
14(1)	Fail to produce licence	15	36
15(1)	Improper muffler	0	0
16	Towing on serviced roadway prohibited	2	0
17	No helmet	72	95
22	Trespassing (no written permission)	6	0
24(3)	Disobey signs on highway or public trail	6	4
	Others	36	65
	TOTAL	733	1,144

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

SECTION	OFFENCES	1980	1981
2	Disobey police officer	0	0
3	Fail to yield to vehicle on right	3	2
4	Disobey sign	12	15
5(1)(b)	Fail to yield — from adjoining property	0	0
5(2)	Improper crossing of roadway	0	0
6(3)	Improper left turn	0	0
7(1)	Fail to signal	1	0
7(2)	Fail to signal from stop position	0	0
7(3)	Improper signal	0	0
7(4)	Fail to signal stop	0	0
8(a)	U-turn-no clear view	0	0
8(b)	U-turn railway crossing	0	0
8(c)	U-turn on hill-no clear view	0	0
9	Disobey traffic signal light	2	1
10(1)	Fail to share roadway	0	0
10(2)(b)	Passing when roadway not clear	1	1
11	Drive left of centre	3	2
12	Pass on right — not in safety	0	0
13	Following too closely	0	0
14(1)	Fail to stop at railway crossing	0	0
14(2)	Cross railway improperly	0	0
14(1)(a)	Park on roadway	0	0
16	Speeding	0	0
17	Careless Driving	2	3
19(a)	Drive on Kings Highway (prohibited)	0	0
20	Improper lights	0	0
21	Improper or no lights	2	1
	Others	7	5
	TOTAL	33	30

CRIMINAL CODE OF CANADA (MOTORIZED SNOW VEHICLES)

SECTION	OFFENCES	1980	1981
233(2)	Fail to remain	0	0
233(4)	Dangerous driving	0	0
234	Impaired Driving	9	5
235(2)	Fail to take breathalyzer	0	1
236	Over .08 alcohol	0	2
238(3)	Drive while disqualified	0	0
	TOTAL	9	8

MUNICIPAL BYLAWS (MOTORIZED SNOW VEHICLES)

SUMMARY OF CONVICTIONS (MOTORIZED SNOW VEHICLES)

Motorized Snow Vehicles Act	733	1,144
Criminal Code of Canada	9	8
Regulations	33	30
Bylaws	0	0
TOTAL	775	1,182

SUSPENSIONS

COURT ORDERED SUSPENSIONS H.T.A.

	1980	1981
Careless driving	550	342
Speeding over 30 mph (50 kmh)	152	219
Racing	16	11
Fail to remain	131	151
Drive while licence is suspended (H.T.A. Section 35)	3	1142
Mandatory suspension H.T.A. effective 19/11/81 (Section 35)	0	901
Fail to stop for police (189a)	0	7**
Others	23	89
TOTAL	875	2,862

DEMERIT POINT SYSTEM SUSPENSIONS

6 & 15 demerit point accumulation	13,246	9,223
Fail to attend interview	1,280	1,031
As a result of interview	467	634
TOTAL	14,993	10,888

DISCRETIONARY SUSPENSIONS (H.T.A. – SECTION 30)

Medical or physical condition	1,810	1,923
Operating record	3	1
TOTAL	1,813	1,924

SUSPENSION FOR:

Motor Vehicle Accident Claims	4,234	2,776
Failure to pay judgment	1,286	1,123
Default in payment of traffic fine	63,463	66,002
TOTAL	68,983	69,901

MANDATORY SUSPENSION H.T.A. FOR CRIMINAL CODE OFFENCES

Criminal negligence	164	182
Dangerous driving	1,738	1,783
Impaired	18,677	20,776
Failure to provide breath sample	2,998	3,386
Blood/alcohol .08	20,224	21,748
Fail to remain at scene	2,027	2,048
Drive while disqualified	9,600	768
Fail to provide (RDSI)	227	273
TOTAL	55,655	50,964
TOTAL OF ALL SUSPENSIONS	142,319	136,539

DEMERIT POINT SYSTEM

1980

1981

DRIVER IMPROVEMENT ACTIONS

Advisory letters issued	164,417	144,304
Interviews conducted	38,904	35,099

SUSPENSIONS

Drivers who reached suspension level through point accumulation (15 points)	13,246	6,968
Drivers who reached suspension level through point accumulation (6 points)	0	1,139**
Drivers who reached suspension level through point accumulation — (second accumulation)	1,905	1,116*
Drivers suspended for failure to attend interview	1,280	1,031
Drivers suspended as a result of unsatisfactory interview	467	634
Total suspensions under point system	14,993	10,888

SUSPENSIONS

DRIVER MEDICAL REVIEW

Total Cases Reviewed	77,035	89,663
Satisfactory Reports	75,198	86,085
Unsatisfactory reports as to class	710	2,604
Totally unsatisfactory	1,127	974
New Medical Waiver Programme (Effective March 1981)		
Waivers Granted	0	126
Waivers Denied	0	36

DRIVER OPTOMETRICAL REVIEW HIGHWAY TRAFFIC ACT

Total Cases Reviewed	3,917	4,170
Satisfactory vision reports filed	1,232	1,495
Drivers required to wear prescribed lenses while driving —		
no previous restriction	2,464	2,377
Unsatisfactory vision reports	221	298

*New method of recording in 1981

**New probationary driver licensing system — June 1981

DRIVER CONTROL STATISTICS 1981 SUMMARY

	1979	1980	1981
NUMBER OF LICENSED DRIVERS IN ONTARIO	4,858,351	4,993,531	5,123,177
CONVICTIONS RECORDED IN RESPECT TO THE OPERATION OF:			
Motor Vehicles	1,440,473	1,386,938	1,412,202
Motorized Snow Vehicles	1,900	775	1,182
TOTAL	1,442,373	1,387,713	1,413,383
TOTAL DRIVER LICENCE SUSPENSIONS APPLIED	144,826	142,319	136,539
MEDICAL AND OPTOMETRICAL REVIEWS CONDUCTED	43,334	80,952	93,833

Trends in Motor Vehicle Accidents

Death and Injury Rates Over the Period 1972-1981

Between 1972 and the end of 1981, Ontario's population and the number of licensed drivers, motor vehicle registrations and motor vehicle accidents (with the exception of the years 1976, 1978 and 1980) were all on the rise. During the past ten years, traffic deaths reached a high of 1,959 in 1973 and declined to a low of 1,420 deaths in 1977.

In the past year, the number of deaths decreased 4.2 per cent from the 1,508 deaths in 1980 to 1,445 deaths in 1981. The population grew from 8.57 million to 8.63 million. The death rate per 100,000 population decreased to 16.8 from 17.6 last year. The death rate over the past ten years ranged

from 24.7 to 16.8. The 1981 death rate of 16.8 is the same and the lowest as in the year 1946 at which time the population was 4.09 million.

There was a decrease of 1,046 persons injured, from 101,367 in 1980 to 100,321 this year. The 1981 injury rate per 100,000 population decreased to 1,163.1 from 1,182.8 in 1980.

Last year, the number of motor vehicle accidents reported totalled 198,372 an increase of 1.0 per cent against the 1980 total of 196,501. However, there were decreases of 4.8 per cent in fatal accidents and 4.2 per cent in persons killed. The personal injury accidents and persons injured decreased slightly by 0.1 per cent and

1.0 per cent respectively.

The motor vehicle accident rate per one million kilometres travelled increased this year to 2.8 and the fatal accident rate per 100 million kilometres travelled remained the same as the previous year i.e. 1.7. The death rate per 100 million kilometres travelled decreased from 2.1 in 1980 to 2.0 this year. The 1981 death rate of 2.0 is the lowest since 1955.

The number of kilometres driven in 1981 was estimated at 70,905,834,000 a decrease of 2.2 per cent from the 1980 figure of 72,419,477,000. This is the first decrease in kilometres driven during the past 25 years.

MINISTRY EXPENDITURE BY HIGHWAY

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
2	Lancaster-Windsor	4,595,713	4,032,392
3	Fort Erie—Windsor	5,339,438	2,186,940
4	Port Stanley—(Creemore)	87,357	1,264,222
5	Toronto—Paris	4,730,262	687,231
6	Hwy. 24—Tobermory	7,616,861	2,733,950
7	Ottawa—Sarnia	7,778,222	4,156,338
7A	Hwy. 115—Hwy. 12 (Manchester)	31,620	242,938
7B	Peterborough—Chemung Corners	47,531	77,847
8	Winona—Goderich	1,986,471	738,201
9	Hwy. 11—Kincardine	22,762	1,409,023
10	Port Credit—Owen Sound	280,766	1,108,166
11	Toronto—Rainy River	27,655,642	9,650,969
11B	At New Liskeard	102,419	70,381
12	Whitby—Midland (7)	1,082,761	974,475
14	Bloomfield—Marmora	7,374,095	279,584
15	Kingston—Carleton Place	117,455	570,777
16	Johnstown—Ottawa	1,833,576	505,250
17	Quebec Boundary—Manitoba Boundary	25,217,984	9,344,512
17B	At North Bay		5,032
18	Leamington—Windsor	5,856	262,706
19	Port Burwell—Tralee	48,036	601,798
20	Niagara Falls—Hamilton	193,573	392,823
21	Hwy. 3 (Morpeth)—Owen Sound	2,641,928	1,329,705
22	London—Hwy. 7		226,807
23	Hwy. 7—Hwy. 9 Teviotdale		492,269
24	Hwy. 59—Collingwood	4,612	1,071,972
24A	Paris—Galt		42,674
25	Oakville—Hwy. 89	369,204	545,542
26	Barrie—Owen Sound	1,644	617,538
27	Toronto—Penetanguishene	715,383	1,077,362
28	Port Hope—Bancroft	150,953	628,645
29	Brockville—Arnprior (15)	518,053	426,280
30	Brighton—Havelock	171,030	231,918
31	Morrisburg—Ottawa	248,263	458,377
32	Gananoque—Hwy. 15	10,056	74,133
33	Kingston—Stirling	1,947,946	521,080
34	Hwy. 2 (Lancaster)—Hawkesbury	2,195,380	361,279
35	Hwy. 401 (Newcastle)—Dwight	267,877	813,194
35A	Fenelon Falls—Hwy. 35		15,387
36	Burleigh Falls—(Hwy. 7)	60,799	326,409
37	Belleville—Hwy. 7 (Actinolite)	741,857	176,205
38	Kingston—Hwy. 7 (N. of Sharbot Lake)		319,823
40	Blenheim—Sarnia	1,164,641	424,304
41	Napanee—Pembroke	48,917	950,010
42	Brockville—Westport (29)	17,873	212,668
43	Alexandria—Perth	170,240	881,749
44	Hwy. 17—Hwy. 29 (Almonte)		91,424
45	Cobourg—Norwood		258,844
46	Hwy. 7 (E. of Manilla)—Bolsover	16,041	124,201
47	Hwy. 48 (N. of Hwy. 7)—E. of Hwy. 12		320,167
48	Toronto—Hwy. 35 (Coboconk)	101,179	742,366
49	Picton—Hwy. 401 (W. of Desoronto)		92,463
50	Toronto—Hwy. 89	19,961	416,176
51	Rondeau Prov. Park—Jct. Hwy. 3		23,221
52	N. of Hwy. 97S—Hwy. 2	1,129	197,715
53	Hamilton—Hwy. 2 (Eastwood)	204	366,266
54	Cayuga—Cainsville		283,425
55	Hwy. 401—Niagara	3,862	89,874
56	Hct. Hwy. 3—Jct. Hwys. 53 & 20		130,995
58	Port Colborne—St. Catharines	111,320	236,058
58A	Port Colborne (Hwy. 58 to Jct. Hwy. 14)		13,855

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
59	Long Point—Shakespeare	554,765	562,578
60	Hwy. 17 (W. of Renfrew)—Huntsville	4,090,476	1,198,274
61	International Bdry.—Thunder Bay		220,628
62	Hwy. 14 (N. of Belleville)—Pembroke	2,730,803	1,102,552
63	North Bay—Quebec Border	11,532	327,318
64	Sturgeon Falls—Hwy. 11	1,388,955	643,770
65	Quebec Border—Matachewan	1,260,848	466,248
66	Quebec Border—Hwy. 65	1,663,220	427,844
67	Iroquois Falls—Hwy. 101	569,837	142,369
68	Hwy. 17 (Espanola)—S. Baymouth		54,513
69	Hwy. 12 (N. of Brechin)—Capreol	1,229,444	1,391,910
69B	Parry Sound	650	
70	Springmount—Hepworth		74,616
71	Fort Frances—Hwy. 17 (E. of Kenora)	200,594	517,035
72	Hwy. 17 (Dinorwic)—Sioux Lookout	2,817,545	190,583
73	Port Bruce—Dorchester	1,273	194,553
74	Hwy. 3 (New Sarum)—Nilestown	2,273	110,957
76	Hwy. 3 (Eagle)—Hwy. 2	134	82,702
77	Leamington—Hwy. 401 (N. of Comber)	82,830	89,757
78	Hwy. 21 (Dresdan)—Wallaceburg		59,578
79	Hwy. 2 (Bothwell)—Hwy. 7	12,963	181,303
80	Hwy. 2 (S. of Glencoe)—Courtright		325,522
81	Delaware—Grand Bend	192,138	426,290
82	Hwy. 7 Jct.—Hwy. 24	4,234	33,096
83	Hwy. 23 (Russeldale)—Hwy. 21	3,817	206,934
84	Hensall—St. Joseph	3,952	86,933
85	Kitchener—Elmira	213,707	
86	Guelph—Amberly	1,680,582	613,265
87	Harriston—Hwy. 86 (Bluevale)	3,118	169,067
88	Bardford—Hwy. 27 (Bond Head)		48,258
89	Hwy. 11—Hwy. 23 (E. of Palmerston)	802,985	628,176
90	Barrie—Angus		121,560
91	Stayner—Duntroon		41,461
92	Elmvale—Wasaga Beach		67,314
93	Hwy. 11 (E. of Barrie)—Waverley		207,737
94	Callander—Hwy. 17 (S. of North Bay)		42,543
95	Alexandria Point—Wolfe Island	17,852	46,434
96	Port Metcalf—W. End of Wolfe Is.	122,074	146,650
97	Hwy. 6 (Freelton)—Hickson	131,711	106,760
99	Dundas—Hwy. 24 (N. of Brantford)	26,258	200,898
100	Jct. Hwy. 401 to London	17,977	19,497
101	Quebec Border—Hwy. 17 (Wawa)	1,704,479	1,882,899
102	Thunder Bay—Sistonens Corners		119,298
105	Hwy. 17—Red Lake	99,995	489,288
106	Hwy. 28 (Dale)—Hwy. 2 (Welcome)		20,335
108	Hwy. 17—Hwy. 639 (Quirke Lake)	49,587	186,319
112	Hwy. 11—Hwy. 66 (Swastika)		97,954
115	Newcastle—Peterborough	101,851	273,686
117	Jct. Hwy. 11—Jct. 35	7,972	195,154
118	Hwy. 11—Hwy. 169	80,668	469,905
121	Hwy. 28—Hwy. 35 (S. of Fenelon Falls)	117,934	567,220
124	Sundridge—Parry Sound	3,697	336,630
125	Hwy. 105—Red Lake		36,523
126	Hwy. 401—Hwy. 2 (London)	9,938	57,490
127	Maynooth—Hwy. 60 (E. of Whitney)		155,944
129	Thessalon—Chapleau	103,723	1,169,702
130	Port Arthur—Hwy. 61	13,294	47,605
132	Renfrew—Hwy. 41	70,462	121,219
133	Hwy. 33 (Millhaven)—Hwy. 401		42,638
134	Jct. Hwy. 7—Jct. Hwy. 28 (Lakefield)	163	73,642
135	Hwy. 401—Hwy. 2 (London)		33,081
136	Hwy. 24—Orangeville		83,691
137	Hwy. 401—Thousand Island Bridge		26,069
138	Cornwall—Monkland	6,730	252,411

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
140	Hwy. 3 (Port Colborne)—Hwy. 20	7,820	82,366
141	Hayes Corners Hwy. 69—Jct. Hwy. 11	2,779,540	225,775
144	Sudbury—Hwy. 101	56,360	1,302,793
169	Jct. Hwy. 12 to Jct. Hwy. 69	798,649	212,256
400	Toronto—Hwy. 12 (Coldwater)	14,916,204	2,547,530
401	(MCF) Quebec Border-Windsor	27,080,361	13,773,230
402	Hwy. 7—Blue Water	21,200,118	802,334
403	Burlington—Brantford	25,272,919	1,312,220
404	Toronto—Hwys. 7 & 12	8,430,621	199,757
405	QEW—International Br. (Queenston)	107,015	160,780
406	Hwys. 20-58—QEW	15,986,013	150,927
407	Jct. Hwy. 401 to Jct. Hwys. 35 & 115	1,937	
409	Belfield Exway Hwy. 401—International Airport	2,266	336,329
410	Hwy. 401—Jct. Hwy. 7 & 10	91,113	93,611
416	Jct. Hwy. 2—Johnstown to Ottawa	2,950	
417	Quebec Boundary—Ottawa	4,081,105	2,618,111
420	QEW—Rainbow Bridge (Niagara Falls)	3,388	78,865
427	QEW—Hwy. 401	1,790,083	793,900
451	(QEW) Toronto—Fort Erie	8,751,875	5,892,019
458	Ottawa Queensway	3,285	
	TOTAL KING'S HIGHWAYS	261,421,414	105,806,924

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
500	Hwy. 41 (Denbigh)—Bancroft	1,144,794	435,432
502	Dryden—Hwy. 17	37	468,357
503	Tory Hill—Kirkfield	1,607,439	573,575
504	Hwy. 620—Apsley		103,695
505	Hwy. 46—Uphill	550	92,877
506	Plevna—Hwy. 41	139,179	138,124
507	Hwy. 28 (Lakefield—Hwy. 503	30,758	265,747
508	Burnstown—Black Donald Mines	32,490	219,417
509	Hwy. 7—Snow Road Station	439,310	216,340
510	Magnetawan—Hwy. 124		12,730
511	Brightside—Hwy. 508	1,663,726	212,481
512	Eganville—Hwy. 60	10,281	191,591
513	Hwy. 132—E. of Hyndford		65,213
514	Hwy. 500—Hwy. 515		127,259
515	Hwy. 512—Combermere	31,794	182,611
517	Twp. Road (near New Carlow)—Hwy. 62		61,974
518	Sand Lake—Hwy. 69	358,479	425,615
519	Hwy. 121—Redstone Lake	182,126	197,760
520	Burk's Falls—Ardberg	143,834	232,214
522	Hwy. 11—West of Loring	84,102	492,993
523	Lyell Twp. Line—Hwy. 60	311,100	81,416
524	Hwy. 522—Hwy. 534 (E. of Restoule)		22,871
526	Hwy. 69—W. of Britt	7,146	63,895
527	Jct. Hwy. 11 & 17 Northerly	577,236	960,340
528	Wolseley Bay—Hwy. 64	518,736	82,364
528A	Pine Cove Landing—Hwy. 528		38,344
529	Hwy. 69—Hwy. 69 (Magnetawan River)	6,043	165,904
529A	Hwy. 529—Bayfield Wharf	20,519	55,757
531	Bonfield—Hwy. 17		17,384
532	Hwy. 11 (S. of Bracebridge)—Hwy. 69		62,884
533	Mattawa—Hwy. 63	23,178	595,921
534	Powassan—Restoule	69,120	221,799
535	Hwy. 64—Riviere Veuve		260,718
537	Hwy. 69—Hwy. 17 (Wahnapiatae)		119,003
538	Algoma Miners Loop		33,313
539	Hwy. 64—Warren	706,963	309,357

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
539A	Hwy. 539—Tert. Road 805		32,406
540	Little Current—Meldrum Bay	195,230	687,763
540A	Hwy. 540—Barrie Island	112,486	60,449
540B	Manitoulin Island	10,434	
542	Hwy. 68—Gore Bay	138,626	348,782
542A	Hwy. 542—Tehkummah		54,513
546	Hwy. 17—Mississagai Prov. Park		627,122
547	Hwy. 101—Hawk Jct.		23,732
548	Around ST. Joseph Island—Hwy. 17	256,592	326,920
549	Lake Panache—Hwy. 17	2,199,015	54,513
550	Sault Ste Marie—Gross Cap	2,026	39,385
551	Province Bay—Hwy. 540		109,026
552	Hwy. 556—Twp. Road (E. of Hwy. 17)	525,575	77,488
553	Massey-Bull Lake Lodge		243,664
554	Hwy. 546—Hwy. 129		88,771
555	Magog Lake—Hwy. 557		52,578
556	Hwy. 17 (Heyden) N. Easterly	651,006	478,204
557	Blind River Northerly		102,078
558	Haileybury—Montreal River	49,591	85,827
559	Hwy. 69 Nobel—Hwy. 69		93,755
560	Hwy. 11—Hwy. 144 (S. of Gogama)	887,082	954,005
560A	Westree—Hwy. 560		36,567
561	Bruce Mines—Hwy. 638		94,891
562	Hwy. 11 (E. of Thornloe)—Hwy. 65	14,741	49,387
563	Batchawana—Hwy. 17	227,227	23,322
564	Blanche River Bridge—Hwy. 112		43,147
565	Pte Aux Pins—Hwy. 550		6,254
566	Matachenan—Ashley Mine		104,390
567	E. of Silver Centre—N. Cobalt		145,952
568	Hwy. 11—Kenogami		15,384
569	Hwy. 11—Hwy. 11 (S. of Englehart)	37,816	187,928
570	Sesekinoko—Hwy. 11		12,126
571	Hwy. 562—Earlton	976,753	26,454
572	Hwy. 11 Ramore—Hwy. 101	764,105	63,952
573	Charlton—Hwy. 11		89,163
574	Cochrane—Norembega		183,222
575	Jct. Hwy. 17—Jct. Hwy. 64	3,465	100,479
576	Hwy. 101—Kam-Kotia Mine		104,165
577	Hwy. 101—Iroquois Falls	2,133	108,931
578	Iroquois Falls—Hwy. 11		36,672
579	Cochrane—Gardiner	3,155	177,853
580	Hwy. 11—Lake Nipigon	54,386	44,052
581	Hwy. 11—Remi Lake		48,501
582	Hwy. 11 & 17—Loop at Hurkett		22,736
583	Mead—Lac Ste Therese	10,522	240,850
584	Hard Rock Mine—Nakina	2,586,957	245,920
585	Hwy. 11—Pine Portage	172,054	127,894
586	Hwy. 11—Lower Shebandowan Lake		18,828
587	Silver Islet—Hwy. 11 & 17	16,731	356,587
588	Stanley—Round Lake Road	723,039	221,524
589	Hwys. 11A & 17A—Dog Lake Road	193,826	251,281
590	Hwy. 130—Hwy. 588 (Nolalu)		92,985
591	Hwy. 589 Northerly		29,204
592	Hwy. 11 (Novar)—Hwy. 11	3,324	69,724
593	Hwy. 61—Hwy. 588 (Nolalu)		174,788
594	Dryden—Hwy. 17	329,903	120,728
595	Hwy. 597—Hwy. 590	270,080	139,974
596	Kenora—N. of Minaki	6,909,080	630,943
596A	Kenora	461,233	
597	Pardee—Hwy. 608		61,619
598	Hwy. 604—Hwy. 128 (N. of Kenora)		42,118
599	Ignace—Tert. Road 808	60,919	1,169,573
600	Hwy. 71—Rainy River	411,647	323,562
601	Hwy. 17—Dryden	147,244	68,439
602	Fort Frances—Emo	14,750	126,122

KING'S HIGHWAYS

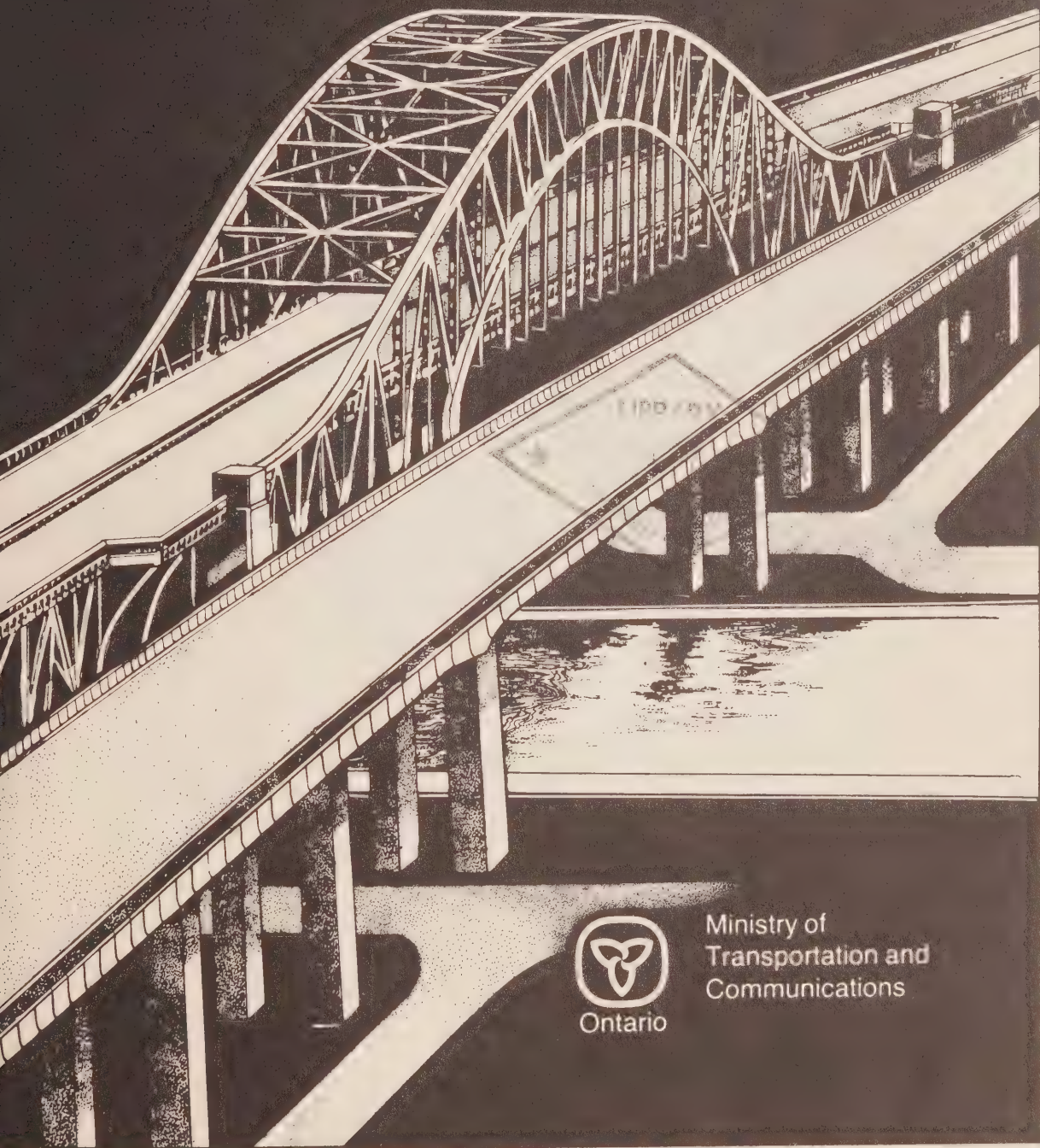
HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
603	Hwy. 17—Dymont		31,579
604	Hwy. 17—Kenora Airport		23,952
605	Hwy. 17—Eton—Rugby	10,663	88,778
607	Hwy. 69—(Big Wood—Hwy. 64)		56,536
607A	French River—Hwy. 607		11,891
608	Hwy. 61—Hwy. 595 (S. Gillies)		68,210
609	Hwy. 105—Clay Lake		70,584
610	Hwy. 67—Hwy. 101 (Hoyle)	48,327	146,059
611	Hwy. 602 (Sherwood) Northerly		120,216
612	Hwy. 103 (Mactier)—Hwy. 69		17,278
613	Hwy. 602—Lake Despair	55,435	111,508
614	Hwy. 17—Manitouwadge	28,425	218,092
615	Hwy. 17—Burditt Lake		62,817
616	Hwy. 101—Palomar		11,237
617	Hwy. 11 (Stratton)—Hwy. 600	4,185	129,296
618	Red Lake—Madsen	615,905	32,390
619	Hwy. 11 (Pinewood)—Hwy. 621		140,719
620	Hwy. 62—Hwy. 28 (Apsley)	19,978	164,452
620A	Hwy. 28—Hwy. 620		2,025
621	Hwy. 11—Lake of the Woods	3,539	137,604
622	Hwy. 11 (Atikokan) Northerly	49	107,420
623	Hwy. 11—Sapawe	65,442	17,763
624	Hwy. 11—Larder Lake		228,213
625	Caramat—Hwy. 11		106,222
626	Jct. Hwy. 17 to Marathon		14,992
627	Heron Bay—Hwy. 17	638,094	116,031
628	Red Rock—Hwys. 11 & 17		29,132
629	Timmins—Timmins Airport		41,357
630	Kiosk—Hwy. 17	24,421	137,210
631	Hwy. 17—Hwy. 11	25,661	897,741
632	Hwy. 118—Rosseau		46,833
633	Hwy. 11—Kawene		21,316
634	Smooth Rock Falls—Eraserdale	909,113	362,627
635	Hwy. 17—Ottawa River Bridge		11,891
636	Hwy. 11—Frederick House		21,464
637	Hwy. 69—Killarney	539,555	304,028
638	Dunns Valley—Echo Bay	1,060,844	173,089
639	Hwy. 108—Hwy. 546	1,207	183,753
640	Hwy. 571—Earlton Airport Entrance	860	13,031
641	Hwy. 17—Pellatt	12,904	39,184
642	Hwy. 599—Sioux Lookout		232,737
643	Hwy. 584—Twp. Road to Cavell		68,566
644	Hwy. 69 (Pte. Au Baril) Westerly		54,513
645	Hwy. 529—Bing Inlet	18,584	83,615
646	Pickle Crow—Central Patricia		191,754
647	Hwy. 17—Blue Lake Prov. Park		22,986
648	Dyno Mine—West Jct. Hwy. 121		149,060
649	Bobcaygeon—Hwy. 121		85,183
650	O.N.R. Right-of-way—Hwy. 12		38,425
651	Hwy. 101—Missanabie		215,718
652	Wade Lake—Kwy. 574	198,720	78,693
653	Portage Du Fonte Bridge Hwy. 17		120,304
654	Hwy. 11—Nipissing		105,978
655	Timmins—Ward Kidd Twp. Boundary	22,801	344,740
656	Hwy. 533 Northerly		19,213
657	Gold Pines—Hwy. 105		38,920
659	Hwy. 604—Hwy. 128		64,236
660	Bala—Hwy. 103		77,297
661	Gogama—Hwy. 144		19,511
663	Hwy. 11 (W. of Hearst) Northerly	8,212	22,719
664	Hudson—Hwy. 72		50,208
665	Hwy. 17—Richan		57,581
666	Kenora—Redditt	13,082	134,648
667	Hwy. 129—Sutton		143,711
TOTAL SECONDARY HIGHWAYS		31,899,528	25,525,283

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
TERTIARY ROADS			
800	Hwy. 11 & 17 N. of Whistle Lake		54,044
801	Hwy. 11—Namewanikan River		50,748
802	Hwy. 11—Burchell Lake		49,653
803	Hwy. 575—(Hwy. 101-3 mile South)		16,864
804	Hwy. 105 (lower Manitou Falls)		93,672
805	Hwy. 539A (River Valley)—Pond Lake		172,815
808	Hwy. 646—Otosilwin River		212,801
809	Hwy. 564—End of Highway		14,849
810	Hwy. 553—Richie Falls		238,664
811	Tertiary Road 800 northwesterly		347,739
812	Manitou Road-Hwy. 11 northerly	1,120,355	
	TOTAL TERTIARY ROADS	1,120,355	1,251,849
ACCESS, INDUSTRIAL & ARTERIAL ROADS			
708	Marchington Lake Road	65,826	
709	Anaconda Road		14,579
751	Arterial Road—Jane ST. S'ly to S. Queens Drive	2,154,921	
758	N. of Hwy. 17 to Armstrong/Hurkett		81,670
760	Detour Lake Access Road	7,535,415	
771	Kodak Access Road	6,052,594	
784	Arterial Road—Lwarence Ave. S'ly to Trethewey Drive	364	
785	Bending Lake Access Road	2,603,932	
792	Hwy. 17—Dubreaulville Townsite		59,307
795	Sherman Mine Road		1,856
799	Caramat—Manitouwadge Road		108,150
	TOTAL ACCESS, INDUSTRIAL & ARTERIAL ROADS	18,413,052	265,562
UNINCORPORATED TOWNSHIPS			
2	Indian Reserves	130,036	277,671
7	Special Settlers	238,779	203,224
9	Local Road Boards	1,698,852	4,976,965
99	Statute Labour Boards	70,152	175,994
	TOTAL UNINCORPORATED TOWNSHIPS	2,137,819	5,633,854
SPECIAL PROGRAMS			
450	Other Ferry Services		2,581,106
735	Kitchener Waterloo Expressway	869,286	287,834
762	Welland Canal Tunnel		46,524
765	Townline Road Tunnel		21,778
797	Airstrip Development	2,820,224	1,893,165
952	Sidewalks	91,285	
7087	E.C. Row Expressway	6,316,910	136,382
7118	Brantford Expressway		20,841
7180	E. Metro Transportation Corridor	1,436,708	
8905	Lands & Buildings	2,188,471	3,596,122
8954	Weigh Scales	60,319	88,529
	Development Roads	6,284,601	1,836
	Connecting Links	16,186,703	1,518,478
	TOTAL SPECIAL PROGRAMS	36,254,507	10,192,595
HIGHWAY TOTALS		351,246,675	148,676,067
Sundry Unallocated, District			
Office Administration, Engineering			
Buildings, Inventory Charges, etc.		(81,857,790)	23,217,435
TOTAL EXPENDITURE		269,388,885	171,893,502

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annual report 1982-1983



Ministry of
Transportation and
Communications

Annual Report 1982-1983

for the
fiscal year
ending
March 31, 1983



Ontario

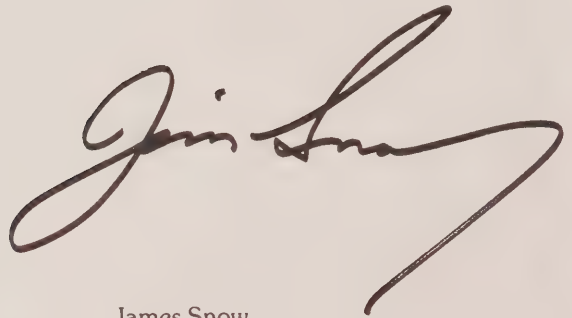
Ministry of
Transportation and
Communications

To: The Honourable John B. Aird,
O.C., Q.C., L.L.D.
Lieutenant-Governor of the Province of Ontario

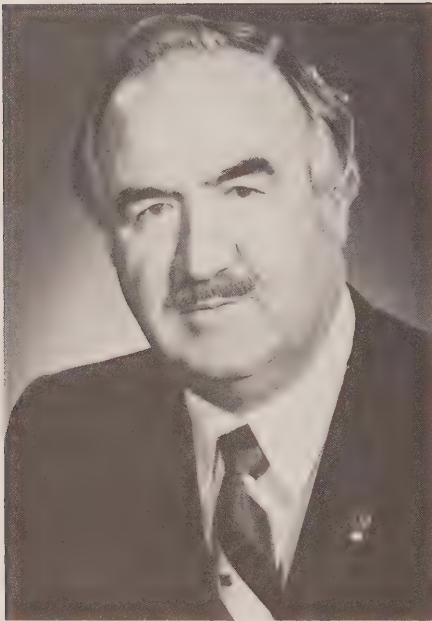
MAY IT PLEASE YOUR HONOUR:

The undersigned takes pleasure in laying before
you the Annual Report for the Ministry of
Transportation and Communications for the fiscal
year ending March 31, 1983.

Respectfully submitted,

A large, stylized handwritten signature in dark ink, reading "James Snow". The signature is fluid and cursive, with a long, sweeping tail that extends to the right.

James Snow
Minister



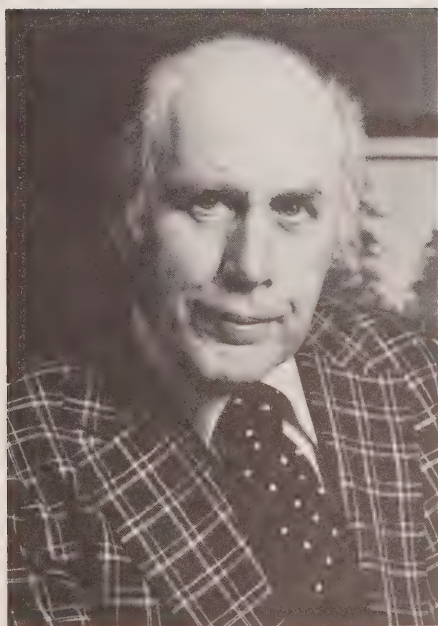
To: The Honourable James Snow
Minister of
Transportation and Communications

Sir:

I have the honour to present the report of the
activities of the Ministry of Transportation and
Communications for the fiscal year ending March
31, 1983.

Respectfully submitted,

Harold Gilbert



Harold Gilbert
Deputy Minister

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Deputy Minister's Summary

I'm very pleased to report that MTC employees continued to work industriously and with innovation to deliver a multitude of transportation and communications services across Ontario during the year, despite a slow country-wide economic recovery.

And, I should add, that additional funding from the Ontario government's Board of Industrial Leadership (BILD) and the province's Employment Stimulation Program (OESP) helped buoy MTC programs while providing increased employment opportunities.

Highways

During 1982-83, MTC was gearing up for the biggest project of the decade — the twinning of the Burlington Bay Skyway — with the award of four contracts for arterial roadwork, preliminary to the primary structure contract.

Highway and freeway construction forged ahead strongly with an overall expenditure of \$258,412,355. An additional \$183,073,107 was allotted to municipal roads' construction.

Of the total highway expenditure, \$187,384,444 was spent on maintenance of the King's Highway network. MTC constructed or rebuilt some 877 km of the system, primarily on two-lane highways, including construction of 59 bridges. Work on multi-laned divided highways totalled 110 km.

Another \$25 million in BILD funds greatly helped spur vital freeway construction in southern Ontario's Golden Horseshoe, while another \$60.5 million in OESP aid was applied to provincial highway and municipal road projects.

Several important freeway projects were completed including the 98-km Highway 402, Sarnia to London; the 22-km Highway 403 link — QEW to Highway 401; and six-laning of Highway 401 easterly to Highway 35/115 interchange.

Other significant projects included: the new Norris Whitney Bridge on Highway 14 south of Belleville; the Pembroke/Highway 17 Bypass; and the upgrading of Highway 400 as a controlled-access freeway to just south of Coldwater.

And work continued on the E.C. Row Expressway in Windsor; Highway 404 to Newmarket; Highway 403 to Woodstock; Highway 406 in St. Catharines; the Highway 410/Brampton Bypass; Highway 427 north from 401 and the widening of Highway 401 west from Toronto.

In northern Ontario, progress continued on the Highway 11/Callander Bypass and the initial contract for the Sudbury N.W. Bypass was awarded late in the year.

Construction was also underway on

the four-laning of the Thunder Bay Expressway and the Highway 17/Kenora Bypass.

Transportation Programs

MTC's emphasis on public transit continued with subsidies to Ontario municipalities totalling \$100,046,000 against operations and \$70,500,000 in capital assistance.

In a significant move, the minister announced plans to build a comprehensive inter-regional transit system to serve the Oshawa-to-Hamilton corridor, using Advanced Light Rail Transit technology (ALRT) developed by the Urban Transportation Development Corporation (UTDC).

This 20-year project will provide commuter service for the Metro-centred area of southern Ontario as well as becoming a showcase for provincially-based transportation technology.

During 1982-83 a total of 68 municipal transit systems received financial assistance. As well, municipalities introducing new rapid transit facilities were eligible to receive special subsidies for their initial years of operation.

Construction of Metro Toronto's Scarborough Intermediate Capacity Transit System (ICTS) started in 1982, using technology developed by UTDC.

Construction of the Region of Ottawa-Carleton's exclusive busways continued. In addition, there was financial and technical assistance to municipalities undertaking transit studies.

Early in 1983, three years of operational testing began on the 53 articulated buses developed in conjunction with General Motors. These buses are operating in Toronto, Hamilton, Ottawa and Mississauga.

Assisted by BILD funding, development of an automated Transit Information/Communication and Control System (TICSS) was carried out, using the latest microprocessor technology. Testing took place in four communities.

As well, a comprehensive review of subsidy assistance to municipalities for transportation of the disabled began. Initiatives to improve services for the disabled included a model parking bylaw and special vehicle plates. MTC's municipal transportation subsidy for the disabled totalled \$5.5 million.

Air Services

MTC's air office continued to monitor the extent and quality of

commercial passenger air services in Ontario, assessing each application submitted to the Canadian Transport Commission; some 600 applications were reviewed and the office responded to the CTC on 21.

Ontario agreed to purchase two de Havilland Dash 8 passenger aircraft for use by norOntair. MTC, MNA and ONTC co-ordinated efforts to finalize deployment of the aircraft and award a contract for their operation to a private carrier.

Two remote airports were under construction in northern Ontario during the year, with 18 in operation. Capital funding came through MNA and maintenance dollars via MTC.

MTC's municipal subsidy program in northern and southern Ontario, supplemented by BILD funding was made available to 46 municipalities, 40 of which either had airports in operation or under construction.

We also offered guidance to municipalities on airport design, operation and maintenance.

Air office staff continued its involvement in implementing the Ministry of Health's system of medical emergency heliports at many hospitals.

Marine Services

During the year, marine office staff maintained contact with the federal government, studying and preparing responses on marine issues affecting Ontario.

Several projects were underway in response to specific recommendations adopted by the cabinet, following the Great Lakes/Seaway Task Force report.

These included a study to develop a commercial promotion program for the Great Lakes Seaway system in co-operation with MTC's goods distribution systems office and the Ontario International Corporation.

In addition, Ontario's strategy for port development was the object of a joint federal/provincial study carried out by a consultant.

To increase public awareness of the marine system in Ontario, a promotional information film "Inward Passage" was commissioned.

Rail Services

Rail office personnel were involved in a number of programs, including branch line rationalization; review of the quality and level of passenger services; regulatory activities; freight issues; promotion of intermodal station and service development and safety issues.

Two important development were

the re-introduction of direct passenger service between Toronto and Chicago by VIA Rail and the start of a study of passenger service requirements in northeastern Ontario — in co-operation with MNA and ONTC.

MTC representatives also attended Canadian Transport Commission regulatory hearings on behalf of the province regarding the potential abandonment of CN's Beeton and Renfrew subdivisions. As well, a number of outstanding abandonment applications were reviewed.

The office continued investigation of acquiring abandoned rail corridors either for MTC or for other government agencies for use in formulation of provincial master rail plan. Staff also continued participation in the planning to electrify GO Transit's lakeshore commuter rail service.

Research

Research and development activities were wide ranging, with activities centred on ways to improve the performance of the highway system, the application of new technology to maintenance and rehabilitation as well as energy conservation.

Structural staff continued to revise the new Ontario Highway Bridge Design Code with publication anticipated in the fall of 1983. The new code embodies the latest design guidelines as well as up-to-date testing procedures.

In materials research, four cathodic protection systems were designed and installed on the substructure of the Burlington Bay Skyway to test their efficacy. Investigation also demonstrated that radar scanning and thermography offer dramatic improvements in the ability to diagnose bridge deck problems.

Earth and environmental staff developed new testing methods for aggregates which were simpler and cheaper to perform, yet gave better indications of field performance.

As well, a report summarizing the use of de-icing chemicals and their environmental impacts was published.

Highway environmental research involved a variety of projects relating to pavement noise, illumination and noise barriers.

Transportation technology and energy research focused on improving the energy efficiency of transportation and reduction of the use of petroleum-based fuels.

Under the Transportation Energy Management Program (TEMP), a joint venture with the Ministry of Energy, MTC conducted research into promotion of propane as an alternative fuel; evaluation of vehicles powered by compressed natural gas (CNG); and vehicles using methanol fuels.

In addition TEMP promoted energy saving concepts such as vanpooling, commuter carpooling and construction of commuter parking lots at major freeway interchanges.

Control system research staff was active in assessment of fibre optics technology for the proposed Highway 401 freeway traffic management system.

Trucks and Buses

Towards the end of the fiscal year, both the Ontario Committee on Truck Safety and Public Commercial Vehicle Act Review Committee were preparing final recommendations.

The OCTS committee's mandate allowed it to investigate all matters pertaining to truck safety, including driver and vehicle standards; rules of the road; enforcement; and public and industry views.

The PCV Review Act Committee issued an interim report in the autumn of 1982 indicating strong support for the reform of trucking legislation, especially the need to reduce the complexity of regulations while stiffening enforcement.

Truck transportation office staff maintained liaison with industry organizations, other ministries, and the federal government. They also developed proposals for reform and refinements to the PVC Act, PV Act and HTA as well as providing support for the PCV Act Review Committee.

Activities of the bus transportation office included negotiations of a reciprocal agreement for bus safety inspections with New York State; implementation of a mechanism for approval of bus tariffs under the administered prices program; and initiation of an Ontario bus committee to study the inter-city transportation of passengers in rural areas and major corridors.

Drivers and Vehicles

Most important highlight during the year was the changeover to a \$12-

million computerized "Plate-to-Owner" vehicle licensing system which took place on December 1, 1982.

This involved installation of more than 1,300 video terminals and printers in MTC Offices as well as licensing agents' offices across the province.

Advantages included staggered renewals keyed to a vehicle owner's birthdate; fast vehicle permit replacement by agents and denial of registration for failure to pay parking fines.

The new system also shifted the onus for reporting the sale of a vehicle and re-registration to the purchaser as well as making the updating and retrieval of information more efficient.

As part of the project, a complete re-organization of the drivers and vehicles division took place during the year, involving separation of the services and production sections. This was also in preparation for a planned relocation to Kingston by licensing operations staff scheduled for late April, 1983.

Highlighting changes and additions to the HTA were: tougher school bus stopping legislation and new child restraint legislation.

The Motorized Snow Vehicles Act was also amended to give snowmobile clubs the authority to issue snow vehicle operators licences.

Another important highlight during the year was MTC's participation in an inter-ministerial task force set up by the Ministry of the Attorney General to investigate ways to reduce drinking and driving.

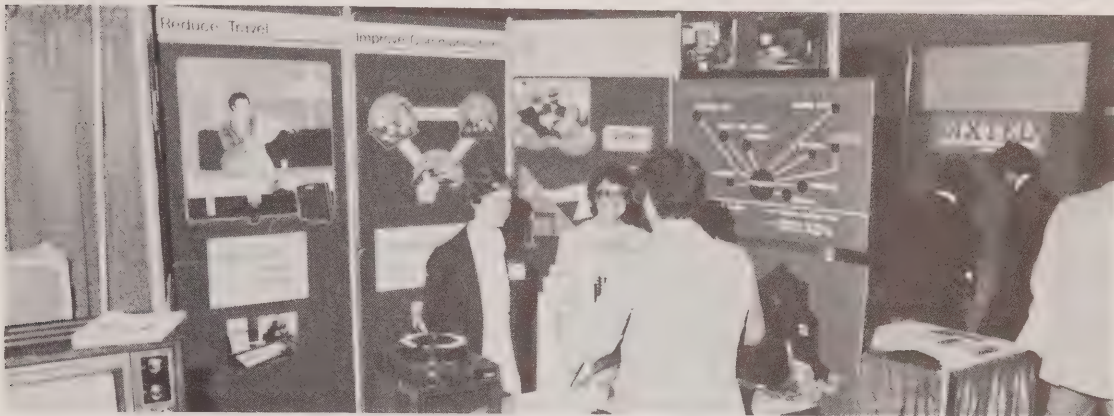
In July, 1982, the new John Rhodes driver exam centre went into operation, replacing four area driver exam operations, including the Downsview location.

Year-end statistics indicated another sizeable reduction in fatalities on Ontario highways and roads, from 1,445 in 1981 to 1,138 in 1982, representing a 21.2 per cent decline.

The following is a summary of expenditures reported by the financial controller for the fiscal year 1982-83, with comparative figures for the preceding year.

Fiscal Year Ending		
	March 31, 1982	March 31, 1983
Ministry Administration	\$ 36,357,186	\$ 39,014,427
Policy Planning & Research	12,607,880	10,474,416
Safety & Regulation	53,238,593	66,997,237
Provincial Highways	499,448,732	540,186,767
Provincial Transit	81,473,563	97,554,400
Provincial Transportation	4,829,264	6,453,109
Municipal Roads	455,527,976	483,705,656
Municipal Transit	176,867,014	198,967,992
Communications	2,353,816	2,172,149
Total Gross Expenditure	\$1,322,704,024	\$1,445,526,153

Deputy Minister's Office



MTC staff promote teleconferencing

Communications Division

The Communications Division continued to promote the interests of Ontario's communications users through the development of responsive policies on broadcast, cable and telecommunications matters.

Staff equally promoted strong communications manufacturing and supply industries through the development and implementation of measures designed to enhance the economic and industrial needs of the province.

During the past year the division has:

Represented the needs and interests of Ontario consumers of telecommunications services before the Canadian Radio-Television and Telecommunications Commission (CRTC) on the following issues:

- implications of proposed Bell Canada reorganization;
- costing methodologies for telecommunications services;
- Telesat's interim rates for parties leasing channels to provide satellite services via the Anik C satellite;
- tiering of cable services, whereby cable operators would group existing and new services, such as pay-TV, into different-priced packages for cable subscribers;
- the introduction of a universal or mandatory Canadian pay-TV service; and
- the licensing of Master Antenna Television (MATV), as an alternative means of delivering broadcast services.

Ontario's policy positions were presented to the federal government on the following matters:

- the development and licensing of cellular mobile radio services;
- the introduction of AM stereo broadcast services; and,
- the recently announced national broadcast strategy, which includes major policy changes previously advocated by Ontario, including, the elimination of licensing requirements to own and operate receiving dishes and the distribution of new programming and information services on cable.
- Presented comments to the Parliamentary Standing Committee on Communications and Culture, with respect to the Applebaum-Hebert Committee's recommendations on broadcasting.
- Participated in a national steering committee to determine Canada's activities in recognition of designation by the United Nations of 1983 as World Communications Year. A joint government/industry proposal to develop a unique telecommunications service for a third world country has been accepted and work is proceeding to investigate an application of the system.
- Participated in the Canadian Standards Association steering committee on telecommunications to develop national technical standards for telecommunications equipment.

- Continued to promote the benefits of teleconferencing and assist government and the private sector in implementing teleconferencing systems; information and assistance was provided to over 1,000 Ontario companies and a majority of Ontario ministries are now using some form of teleconferencing.
- Developed modern revisions to existing legislation that pertains to telephone services in Ontario.
- Continued to provide operational, policy and technical advice to the Ontario Telephone Services Commission, which is responsible for regulating the independent telephone companies under Ontario's jurisdiction.
- Participated in the federal-provincial Conference of Communications Ministers, held in May at Calgary, and a federal provincial task force on joint regulatory mechanisms.
- Headed an interministerial committee which developed specific recommendations for a proposed microelectronics public awareness program in Ontario.
- Provided technical assistance concerning communications application of coaxial cable and fibre optics for traffic management systems.
- Provided operational and technical coordination for Ontario government mobile radio communications in conjunction with federal Department of Communications project with MSAT (Mobile Satellites).

Management Improvement Branch

The mandate for this is to maximize utilization of MTC resources through improvement of management organization, systems, procedures and practices.

In these economic times of decreasing budgets, branch expertise available has been called on in increasing frequency by the deputy minister and other senior management to advise and assist on specific management and organization/system problems.

In fiscal year 82/83 staff provided support to the D-M for MTC's strategic reorganization, announced in July 1982. This clearly reaffirmed the functional responsibilities envisioned by the deputy minister — head office being responsible for strategic direction, policy planning, program development and functional expertise and direction, with regional district offices responsible for program delivery.

Detail organization changes have resulted from this strategic direction. Recognizing the importance of protecting our capital investment (roads, structures, etc.), the D.M. commissioned staff to review the maintenance organization to accommodate its expanded role. Study results to date have produced a draft statement regarding a definition of maintenance.

Personnel completed a study of MTC's Internal Audit Branch. Highlights included transfer of various line operations from audit to the appropriate head office functional or regional units: the introduction of a ministry audit committee which will formally involve senior management in the audit planning process and the adoption of comprehensive audit.

One of the many recommendations resulting from the study of the MTC human resource services was to review the Management Employee Group (MEG) activities. At the request of the D-M, the staff is assessing the results of employee surveys and interviews to help determine MEG's future. Recommendations will be presented to the ministry's Strategic Policy Committee (SPC) for consideration.

Branch staff conducted a regional planning and design study. Organization structures, operating procedures, management and production processes were compared and evaluated. Recommended models have been developed for provincial application.

SPC directed staff to coordinate the preparation of a report to Management Board of Cabinet related to the management standards project. It assessed the ministry's current

management practices and processes against published standards. It also outlined MTC's implementation plan to address the process improvements identified during the study.

Staff continued to monitor implementation of the performance budgeting management information system; completed the plan to

restructure various organization units within the safety and regulations program; provided assistance for the Kingston relocation and reorganization project, evaluated a supply and services pilot study in Eastern Region and prepared a new mandate and role for the newly structured operations committee.

Affirmative Action Program

The mandate of the Affirmative Action Program (AAP) is to raise and diversify the occupational distribution of women.

AP staff planned and managed MTC's affirmative action plan. Emphasis was on coordination of career development initiatives to increase the number of women qualified to compete in under-represented positions. In these and other initiatives, staff worked with MTC managers who annually plan and report on affirmative action initiatives in their areas.

Activities implemented during the past year are highlighted below:

- 77 developmental assignments completed under the accelerated career development program; 15 were initiated through the Affirmative Action Incentive Fund;
- established a computer application training program whereby a minimum of four women annually

- receive six to eight months training;
- coordinated developmental opportunities for women with the potential and interest to progress into entry and middle management level position;
- conducted 85 career and work related counselling sessions with female staff;
- participated on the government Affirmative Action Council Executive and a task force that delivered workshops on "The Changing Workplace" to regional female staff;
- sponsored an affirmative action conference for approximately 70 unit representatives and council members;
- provided technical assistance to the affirmative action network; and,
- disseminated information on career planning and women's issues to female staff.

Strategic Policy Secretariat

Secretariat staff provided support to the deputy minister to ensure the effective operation of the Strategic Policy Committee (SPC); that improvements are made, where appropriate, in the strategic planning and management process.

During the fiscal year 1982/83 personnel were involved in the following activities:

- Routine management of SPC business, the ministry's senior executive committee;
- Provision of administrative support for the resources management committee, the senior committee responsible for overall management of resources;
- Maintenance of effective liaison with the central agencies of government and other ministries on behalf of MTC;
- Introduction of changes in the

- strategic planning process to ensure more streamlined and effective operation;
- Organized and managed the strategic policy development and planning process including: obtaining feedback from industry representatives and organizations on problems and outlooks; presentation of program position and prospects papers; and organizing a "strategy think-in" to consider the ministry's strategic directions;
- Organized the spring senior management conference;
- Edited and printed "Strategic Management at MTC", containing the strategic directions for the period 1984-1989;
- Organized meetings with program coordinators and program chairmen to review and coordinate the strategic planning process;



The Ministry's annual CNE exhibit

Public & Safety Information Branch

Branch staff were responsible for MTC's internal and external communications programs, including liaison with the news media — radio, TV and print.

More than six million pieces of safety-related information materials were produced and delivered during the fiscal year, including brochures, pamphlets, booklets, posters and periodicals such as the *Driver's Handbook*.

Branch personnel also produced safety curriculum materials for all

Ontario public and separate schools and high school driver courses in secondary schools.

As well, staff produced the bi-monthly Ontario Traffic Safety Bulletin, the monthly publication, MTC News, and Working Together, MTC's affirmative action newsletter. Information officers also wrote in-house radio and TV commercials; A/V scripts; and produced display advertising for newspapers and magazines.

In addition staff counselled other divisions and branches on public relations activities, including the editing and publication of informational materials for the TEMP Program.

During the year, audio-visual staff produced several films and commercials (English and French) for distribution to schools, police forces, TV stations and the public.

Films included: *The DriveSave Zone*, a 23-minute film about fuel economy; *A Tribute to Terry Fox*, commemorating the unveiling of the monument near Thunder Bay; *Life is Precious*, a 14.5-minute film promoting child restraints; and a film about segmental bridges.

Staff filmed a 60-second commercial on drinking and driving on behalf of the Ministry of the Attorney General; a commercial re MTC's new Plate to Owner licencing system and 60-second commercials based on the *DriveSave Zone* and *Life is Precious*.

Audio-visual staff also produced

MTC's annual Ontario On the Move film.

Altogether, the A/V section produced 37,000 black and white photographs, 45,000 slides and two slide shows for ministry use.

Information staff researched and wrote 92 speeches and statements for the minister, deputy minister and other senior staff. Production of news releases, both general and contract award, totalled 372.

Other staff responsibilities included the organization of official functions for the minister, including the unveiling ceremony for the Terry Fox Monument near Thunder Bay; opening of the new John Rhodes Driver Examination Centre at Malton; opening of the new Highway 402, Sarnia-to-London; christening of the new Norris Whitney Bridge south of Belleville; and new section of Highway 403, Ford Drive to Highway 401.

Staff also organized several important news conferences for the minister during the year.

Displays included MTC's annual CNE exhibit, a changeable message sign display at Ontario Place; a display at Inter-Air '82; and the updating of the Safety Caravan, sent to fall fairs and winter carnival events.

Over the past 12 months information staff also answered over 120,000 telephone requests for up-to-date road information; responded to 123,000 requests for general information and replied by mail to another 1,550 enquiries.

— Coordinated MTC's response to briefs, submissions and some letters received from associations and the public in regard to transportation and communications matters; and,

— Managed various special projects of a corporate concern such as Bicentennial 1984 and freedom of information.

In February 1983, staff was reorganized to include the outlooks office, formerly the transportation outlooks office. Work continued on scanning the external environment for social, economic, political and technological developments and their implications for future directions in transportation and communications. Seven scenarios to the year 2000 were prepared by individual experts on a number of broad themes important to the development of Ontario.

Provincial / Municipal Transportation



Municipal transportation division staff managed the ministry's municipal transfer payment programs which assist municipalities in the development and operation of their transit systems and construction, rehabilitation and maintenance of their road systems.

Personnel provided guidance and

expertise to municipal authorities in identifying their transit and road needs and developed a fair and equitable distribution of the subsidy funds made available by the legislature to meet those needs. They also carried out verification procedures to ensure that

legislative and policy requirements were met.

The division was supported in the managing and monitoring of the ministry's municipal roads subsidy program by the staff of the regions and districts.

Municipal Roads Office

Staff of the municipal roads office were responsible for program planning, policy development and evaluation, and the overall administration of all municipal road subsidy programs.

Municipal Roads Programs

During the 1982-83 fiscal year, road grants were provided to 843 municipalities and 41 indian reserves under the Public Transportation and Highway Improvement Act.

In support of the province's energy conservation program, funds were also provided under special agreement to

the regions of Durham and Waterloo and to cities of Brantford and Mississauga for development and implementation of computerized traffic signal systems to improve the traffic flow. In addition, 34 municipalities received subsidy for the installation of traffic signals.

Funds were provided, under agreement, toward the operating deficits of seven municipal ferry services.

The distribution is shown below:

Highway Connecting Link Program

There were 888 km of municipal

roads covered by connecting link agreements. MTC funded 89 agreements with a total expenditure of \$15,083,915. An additional \$1,903,007 was spent on maintenance activities in towns, villages and townships.

Development Road Program

Development road work are municipal projects which would ordinarily place a financial burden on municipalities. MTC subsidizes these projects under agreements with each municipality up to 100 per cent of the total cost.

These roads remain under the jurisdiction of the municipalities with work done either on a day labour basis or by contract. There were 42 projects during the year resulting in an expenditure of \$7,404,514.

Unincorporated Areas

The ministry contributed \$3,406,000 for maintenance and \$2,219,996 on road and bridge improvements involving over 100 projects in the unincorporated areas. During the year there were 25 statute labour boards, 226 local road boards and 43 indian reserves and 114 other groups which expended funds on roads in these areas.

Area	Total Kilometres of Road	Approved Expenditures	Subsidy Paid
Metro Toronto	721.0	44,448,653	21,500,000
Upper Tier	19,477.0	228,257,743	145,699,826
Lower Tier	111,151.1	587,307,603	278,483,824
Traffic Signals			
Upper Tier	—	3,187,689	1,540,408
Lower Tier	—	2,617,784	1,191,194
Computer Systems			
Metro	—	147,964	73,982
Peel	—	77,304	38,652
Total	131,349.8	866,044,740	448,527,886

Policy Planning Branch

The past year was one of consolidating and strengthening the organization. As well, the role and function of each office in the branch was defined in terms of a practical approach to MTC's policy development needs.

Corporate Policy Coordination

Staff associated with this function produced a major discussion paper to assist the ministry in improving its future effectiveness in the federal-provincial relations area.

Goods Distribution Systems Office

This office moved quickly to define its mandate and identify key programs.

These were directed toward improving the effectiveness and efficiency of the goods transportation/distribution system and thus support productivity improvement in the manufacturing and service sectors.

There are three major program elements:

- Provide advisory service to small Ontario export oriented shippers to resolve their transportation/distribution problems;
- Explore opportunities to expand Ontario's role as a North American transportation hub for international goods movements; and
- Promote the establishment of a comprehensive, computerized transportation pricing/routing/service data information system for Ontario/Canadian shippers and carriers.

Urban Transportation Policy Office

During the past fiscal year, personnel successfully shaped and supported the following significant strategic achievements:

- Met MTC's strategic requirements in the greater Toronto area by developing a transportation

overview and strategy that contributed to the development of the inter-regional rapid transit strategy now being implemented under the GO ALRT Program;

- Initiated a number of strategic studies designed to influence the coordination of transit services in the greater Toronto area;
- Supported the Toronto area liaison committee in fulfilling its role in discussing common problems, issues and future perspectives in transportation and land use; and
- Supported the coordination and preparation of the strategic directions for MTC's municipal program.

Intercity Transportation Policy Office

Office staff worked to expand its understanding of passenger travel with a view to ensuring effective implementation of policies encouraging intermodal cooperation and system integration. In detail the following projects were carried out:

- Closer liaison was effected with the carrier industry through the ministry's rail and bus office;
- Agreement in principle was obtained for an intermodal terminals program and initial demonstration project;
- The associated policy components were tentatively accepted by representatives of the intercity rail and bus modes; and
- The concepts of mobility and modal choice were supported by initiatives in preparing an Ontario Intercity Transportation Guide, by research projects in mobility and intermodal coordination and by auto, rail and bus passenger surveys.

Transportation Demand Forecasting Office

Staff completed several strides in the areas of transportation demand

estimating techniques, cost effective data sources and policy sensitive outputs, including:

- Developed short range demand forecasts for GO ALRT by applying a more readily understood and flexible technique in conjunction with micro-computers;
- Evaluated the transportation data needs of the ministry, negotiated the joint federal-Ontario Transportation Data Collection agreement and promoted provincial-municipal transportation data exchange activities to meet MTC's data needs and reduce the data collection cost;
- Initiated a data collection program for truck goods movement; and
- Provided technical assistance to municipalities by conducting seminars and rendering technical advice.

External Relations

MTC's wide range of contacts with transportation agencies of other governments and the transportation industry are coordinated through the office of the coordinator of external relations.

This office assists in development and administration of transportation policy and helps ensure such contacts and meetings appropriately reflect the views of the government with respect to external relations generally.

During the past year the coordinator was involved in attempts to reach an accommodation between federal and provincial government positions on such matters as federal ports legislation, national domestic air carrier policy, and provincial efforts to achieve the national railways' recognition of provincially-operated commuter rail services.





UTDC's light rail vehicle

Transit Office

Transit office staff was responsible for transit program policy development, evaluation, administration of municipal transit financial assistance programs, development and management of operational improvement and demonstration projects, and carrying out or assisting in planning for municipal and provincial transit system improvements.

In 1982-83 a total of 68 municipal transit systems received financial assistance in accordance with the transit operating assistance policy, which provided a subsidy to cover 50 per cent of the theoretical net cost calculated on the basis of a target revenue/cost (R/C) ratio established for each municipality.

Also, additional subsidy up to a limiting amount was provided to those municipalities falling short of their target R/C ratio. Municipalities experiencing an above normal population growth also receive additional subsidy.

As well, municipalities introducing a new major rapid transit facility, were eligible to receive special subsidy for the initial years of operation. Agreements were developed for such undertakings on an individual basis, incorporating municipal initiatives related to coordinated land use, transportation policies and detailing the operating subsidy terms.

Capital funds were also provided to municipalities at the rate of 75 per cent of expenditures associated with the acquisition of surface capital items and rapid transit construction.

Construction on the Scarborough Intermediate Capacity Transit System (ICTS) started in 1982, utilizing new

transit technology developed by the Urban Transportation Development Corporation (UTDC). The total project cost is estimated at approximately \$180 million scheduled opening is the fall of 1984.

The construction of the \$160 million Region of Ottawa-Carleton exclusive busways continued in 1982. Eighteen lane-kilometres and six stations are scheduled to open in the fall of 1983.

Several initiatives were undertaken to improve transportation services for physically disabled persons, including the development and publication of "Guidelines — Parking Regulation for Physically Disabled Persons", a model parking by-law and development of a computer-aided reservation, scheduling and dispatching system.

Financial and technical assistance to municipalities undertaking transit studies continued. Operational studies of existing and potentially new transit services were completed in Oakville, London, Peterborough, Milton, Elliot Lake, Orillia and Sudbury area. In Hamilton, a major study to review the operation and management of the Hamilton Street Railway (HSR) and its totally-owned subsidiary, Canada Coach Lines, was started; the first phase dealing with the strategic planning, was completed.

In the Toronto area, a major initiative to examine the potential for area-wide fare integration began and progress was made toward establishing a regional bus terminal at the Kipling subway terminal.

A joint MTC/Ontario Urban Transit Association (OUTA) committee, in cooperation with the Ministry of the

Environment, completed a class environmental assessment for municipal transit projects. A joint MTC/OUTA productivity study was initiated to assist transit systems to maximize the effectiveness, productivity and efficiency of transit services.

The first public edition of Ontario Urban Transit Fact Book, summarizing 1981 information, was published in 1982, and its distribution included councils of municipalities with public transit systems.

For the province's articulated bus demonstration project, a three-year operational testing started in early 1983 in Toronto, Ottawa, Hamilton and Mississauga, to assess the economic viability of the 53 coaches developed and manufactured by the diesel division of General Motors (Canada) Ltd.

In conjunction with the Board of Industrial Leadership and Development (BILD), staff was involved in the development and demonstration of a modular and completely automated transit information, Communication and Control System (TICCS). It employs the latest advances in microprocessor technology and enables transit managers to translate policy and resource constraints into a planned service.

Certain components of the system were in operation in the participating systems in Toronto, Ottawa, Hamilton and Mississauga. The components will be made available and marketed in Ontario as well as other transit properties in North America.

A project to demonstrate the operational viability and to assess the performance of an articulated light rail vehicle (ALRV) developed by UTDC, began in the fall of 1982. This involved a six-month revenue service testing in Toronto.



London's municipal airport

Air Office

Staff had broad responsibilities for policy and program development in connection with MTC's interest in air transportation in Ontario. Their overall role was to achieve mobility of people and goods in Ontario by assuring access and choice to air transportation facilities and services which are reliable, fairly priced, safe, effective and efficient. Activities were divided into three sub-groups: remote airport development; municipal airport assistance; and, air transportation influence.

The objective of the remote airport development program was to develop and maintain a system of public airports for remote communities in Ontario's far north to relieve isolation and reduce transportation costs. Construction and maintenance of MTC's airports in remote northern areas was the responsibility of the ministry's northwest region.

Air office responsibilities in this program were the development of policy and standards, preparation of multi-year programs and monitoring of current programs. The system now includes 18 operating airports; two additional airports were under construction. Capital funding was through MNA and maintenance funding through MTC.

The objective of the municipal airport assistance program was to assist municipalities in developing and maintaining a system of municipal airports in order to facilitate the movement of people and goods and to support economic development. It covers the entire geographical area of the province.

The subsidy program, supplemented by funds made available through BILD, was made available to 46 municipalities, 40 of whom either had airports in operation or under

construction. Staff offered guidance to municipalities on the planning, designing and operation of their airports and entered into agreements with them for requested subsidies towards development projects and maintenance expenditures.

Goal of the air transportation influence program was to influence other governments, the air transportation industry and the air transportation users that an adequate access and choice to reliable, fairly priced, effective and efficient air transportation services and facilities are maintained in Ontario.

Staff maintained liaison with airport operators, commercial air carriers, other interest groups, Transport Canada and the Canadian Transport Commission (CTC), the federal agency responsible for licensing and regulating all aviation activities.

A major and ongoing function in this program was the monitoring of the extent and quality of commercial passenger air services afforded Ontario residents. This involved, in part, an assessment of each application submitted to the CTC for authority to operate new or revise existing services. In this regard, staff reviewed some 600

applications and formally responded to the CTC on 21, noting the position of the Ontario government in each case.

Ontario has agreed to purchase two new de Havilland Canada Dash 8 aircraft for use in the norOntair system. It also sponsored local and feeder air service in northern Ontario. Efforts in the fiscal year 1982-83 were initiated jointly by air office staff, MNA and the Ontario Northland Transportation Commission to finalize the deployment of the aircraft and award a contract for the operation of the aircraft to a private air carrier. It is expected the first Dash 8 will be placed in service in the latter part of 1984; the second, early in 1985.

Special policy issues addressed during the past year were: the air navigation system in northern Ontario; design criteria for airport licensing; proposed airport operations manual; revisions to the Aeronautics Act; airport zoning implications; etc.

Personnel continued to be involved in implementing the Ministry of Health's system of medical emergency heliports at many hospitals. Actual construction of each heliport was the responsibility of the hospital authority. The office continued to develop standards and provide assistance and guidance relative to site selection and licensing procedures.

Rail Office

Personnel were responsible for co-ordinating Ontario's interests in all rail-related activities, as well as promoting and assisting the development of a suitable provincial rail transportation system for both passengers and freight.

It was also involved in a large number of diverse on-going programs such as: branch line rationalization; review of the level and quality of passenger services; regulatory activities, freight issues, promotion of

intermodal station and service development, and safety issues.

Two important developments that took place were re-introduction by VIA Rail of direct passenger service between Toronto and Chicago; and a major study of passenger service requirements in Ontario's northeast corridor in cooperation with ONTC and MNA.

Staff also attended CTC regulatory hearings on behalf of the government



Vessel passing through the Welland Canal

on the potential abandonment of CN's Beeton and Renfrew subdivisions and the Fergus town spur. As well as these, there were a number of outstanding abandonment applications currently being investigated, including CN's Meaford, Uxbridge (Cannington spur), and Pagwa subdivisions, as well as CP's Carleton Place subdivision.

In conjunction with abandoned branch lines, staff continued investigation of acquiring abandoned rail corridors either for MTC, or other government agencies in order to protect viable future corridors. The rationalization of branch lines and the potential acquisition of viable abandoned rail corridors are two important elements in the formulation of a provincial master rail plan. Another aspect of this plan under study is the potential sale of the Conrail/Canada Southern rail line, running through

southwestern Ontario.

Staff also participated in the initial planning to electrify GO Transit's lakeshore commuter rail service.

Staff, meanwhile, participated in government/industry joint research into technical standards and economic impact of railway electrification on a national scale, including Ontario.

Personnel was heavily involved in such other passenger-related issues as the continuing intensive work in the Quebec City/Windsor corridor. Extended and detailed discussions were initiated with VIA to encourage and shape the nature of possible corridor improvements to passenger rail services.

Staff continued to be jointly involved with other provinces in regulatory studies and issues. In conjunction with other provinces, Ontario took the lead in: a task force on commuter rail

legislation; Thunder Bay rail capacity study; and the railway costing/railway cost capital.

Staff also participated in a group of committees to define policy and implementation of projects affecting public transportation modes, including the rail, bus and intermodal committees. They also represented Ontario on VIA's regional advisory council.

Personnel continued to be involved on a long-term basis in subject areas which required continuous monitoring and action, including: rail safety issues, transportation of dangerous goods, rail and road crossings, plus regulatory issues such as the Crow rate amendment; CTC jurisdiction over private sidings; commuter and passenger rail Legislation; freight rate issues; and, railway operations technology.

Marine & Pipeline Office

This office was set up in 1981 in response to the Great Lakes/Seaway Task Force recommendation that MTC establish a unit to address identified issues. Several projects are underway to respond to specific recommendations endorsed by cabinet.

Contacts have been maintained with federal staff with jurisdiction in marine matters. Ontario's ability to influence decisions regarding such issues as extension of the navigation season, short and long-term improvements to increase capacity on the Welland Canal, shipbuilding capital expansion, tolls and user charges, depend on contact with federal departments responsible in these areas.

A study to develop a commercial

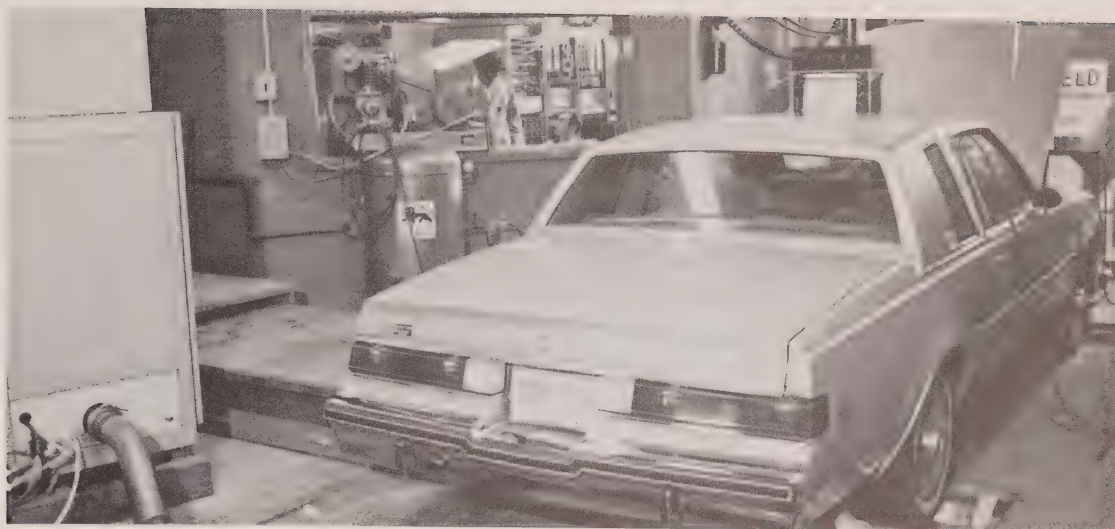
promotion program for the Great Lakes/Seaway System was undertaken in co-operation with the ministry's Goods Distribution Systems Office and Ontario International Corporation.

Interviews were carried out with a broad cross-section of industry transportation experts in shipping, including shippers, shipping lines, agents, forwarders, export agencies and other groups. The study team will recommend a promotional program which recognizes private sector needs as well as the government's trade and industry development objectives.

Ontario's strategy for port development was underway through a joint consultant study funded with

Transport Canada. An inventory of all public ports and various private ports will define future investment needs for those ports with a major regional significance. It will allow both the federal and province governments to direct their efforts to develop ports with the greatest potential to serve Ontario's future growth.

The office had underway several projects to increase the public's awareness of the marine system in Ontario. A film for Ontario Place was under production. A total program of public awareness options to complement the film will be developed for implementation over a two to three-year period, using the Ministry and outside specialists.



Testing a vehicle on MTC's dynamometer

Transportation Technology & Energy Branch

Staff addressed problems and opportunities in transportation infrastructure, vehicle technology, transit, control and communication systems, alternative fuels, and human factors.

In addition, a major effort was made to improve the energy efficiency of transportation in Ontario and reduce

consumption of petroleum-based fuels.

They were also active in many co-operative projects with other provincial ministries and agencies, including the federal government, municipalities, universities, private sector industries, and technical societies at the national and international levels.

For part of the year, the branch was under Policy Planning & Research Division, however, that organisation changed. Policy Planning Branch and Research & Development went to other divisions and reported separately.

Transportation Energy Management Office

Under the Transportation Energy Management Program, (TEMP) a joint venture with the Ministry of Energy, this office was engaged on a broad front to reduce Ontario's dependence on petroleum fuels in transportation.

Alternative Transportation Fuels

This group was concerned with engine modifications, fuel technology, and promotion of substitutes and extenders for conventional petroleum-based fuels. The following are some of the areas of concentration.

- Promotion of propane as a commercial fuel. As a result, there were thousands of propane-powered vehicles and more than 1000 propane fuelling stations in Ontario.
- Development of improved propane carburetion in association with the U. of T. This project has significant industrial potential.
- Evaluation of the performance of 22 vehicles powered by compressed natural gas — a joint project with Consumers' Gas.

- Dynamometer testing of a heavy-duty diesel truck engine modified to run on propane.
- Tests of vehicles running on methanol fuels.

Share-a-Ride

This program promoted energy and traffic-saving concepts such as vanpools and commuter carpooling. Efforts resulted in the creation of 120 vanpools and 500 carpools. An additional 700 carpools were attributed to MTC's commuter parking lot program. Annual fuel savings as a result of ride-sharing were estimated to be five million litres.

Municipal Transportation Energy Management

An estimated 33 per cent of Ontario's fuel consumption occurs in transportation systems under municipal control or influence.

This group worked closely with municipalities to provide technical assistance and educational material to capitalize on opportunities to save fuel. A quarterly newsletter was distributed and more chapters of the transportation energy analysis manual were completed. A driver training program for municipalities was also developed.

Staff continued in development of energy management plans for Toronto

and Hamilton-Wentworth and completed installation of computer-controlled traffic system demonstrations in Waterloo, Durham and Brantford.

Marketing

Staff worked with industry and the general public to disseminate information and promote the adoption of fuel-saving methods and technologies. Approximately three million pieces of information were distributed.

One of the highlights of the year was the 1982 Trucksave Fuel Economy Challenge — a contest involving trucks and truckers in actual service on the 401. Industry response was enthusiastic and media interest high. The contest focussed attention on driving for fuel economy through coverage in 18 magazines (including three cover stories), some of international scope.

Another highlight was completion of *The Drivesave Zone*, an innovative 23-minute colour film on driving techniques that save fuel and money. Although designed specifically for driver education classes, testing showed it to be of interest and value to all drivers, regardless of experience or age. The film is available from public libraries across Ontario.

Additional accomplishments of note included:



- a seminar on propane as a motor fuel attended by 200 fleet managers;
- incorporation of Drivesave materials into the curriculum of Ontario's largest driving school;
- implementation by over 300 companies of Drivesave and/or Trucksave training programs; and,
- adoption by 10 trucking companies of a 90 km/h fleet speed limit and posting of the Trucksave 90 km/h sign on all of their trucks.

Teleconferencing

Information on teleconferencing as a substitute for travel was distributed to 1,400 organizations and presentations were made to 400 groups in the private sector. Nine ministries installed teleconferencing systems and it was estimated travelling was reduced 30 per cent in areas where it was applied.

Human Factors Assessment

Projects were completed on compliance with truck regulations,

assessment of the class G licence test, and a survey of the public's concerns with intercity transportation of goods and passengers.

Also, a new driver education course was developed for use in Ontario high schools.

Other major projects included a study of aesthetic criteria in highway design, costs of littering and vandalism and the impacts of communications technology on privacy and travel patterns.

Control Systems

This group was active in assessment and promotion of fibre optics technology for use in the planned 401 freeway traffic management system.

Municipal traffic control systems; This project was almost fully implemented in Waterloo, Durham and Brantford. As a result of these successful demonstrations, several other municipalities undertook installation of similar computerized traffic control systems.

The Signal System Timing Optimisation Program (SSTOP) in use across Ontario and Canada was further developed and two seminars held for ministry and municipal staff.

In addition to traffic control applications, some of the feasibility studies included:

- Video Pattern Recognition — Investigation of this technology to replace conventional wire loop vehicle detectors.
- work on a system which can recognise and record licence

plate numbers on moving vehicles for use in origin/destination studies.

- Micro-weather Information System — Investigation of ways to make winter maintenance simpler and more efficient by computer processing of available weather and micro-climate information to more accurately predict winter maintenance requirements.
- ways sensors can be developed or applied to provide instantaneous information on weather conditions affecting particular stretches of highway.

Transport and Vehicle Systems

Staff continued to work closely with the Toronto Transit Commission (TTC) and companies in the private sector to help improve the performance of transit vehicles.

A simple suspension retrofit for older subway cars was designed and constructed by Dofasco, incorporating

suggested modifications. Testing has shown it to be effective in eliminating lateral stability problems, thereby reducing wheel and rail wear and improving passenger comfort.

Computer analysis of noise and vibration generated by streetcar wheels helped the TTC reduce their problem. Development work continued on an MTC-designed, rubber-damped streetcar wheel offering potential for further improvement.

Analysis of the design principles of electric traction systems indicated that many electric transit vehicles were over-powered.

Automotive Energy

Research centred on testing of electronically-controlled propane carburetors designed specifically for Ontario conditions.

A program was begun to convert heavy diesels to propane. A demonstration project, using diesel transit buses was underway in co-operation with OC Transpo of Ottawa, federal government and Ministry of Energy.

Compressed natural gas (CNG) also has potential as a motor fuel. Several MTC vehicles and vehicles in the fleets of Consumers' Gas and Union Gas were converted to CNG.

Research also continued at Royal Military College to develop a storage medium to increase the operational range of CNG vehicles. A new test program was begun at U. of T. to examine commercially available CNG conversion and dual-fuel equipment.

A joint program with Suncor and Alberta Gas Chemical assessed the viability of methyl-alcohol-based fuels. Forty unmodified MTC vehicles were running on a special blend of 10% methyl alcohol and 90% gasoline.

Commercial Vehicle Operations and Safety

This group conducted extensive testing of overlength vehicle types, concentrating on manoeuvrability, braking performance, modes of instability, and splash and spray characteristics. Test results provided valuable input to the Uffen Commission.

Two test findings in particular had immediate implications:

- Braking performance of commercial vehicles was found to be less than ideal. Staff were working with industry to improve braking system performance and operation.
- Testing demonstrated splash and

spray could be effectively reduced by using "astroturf" on mud flaps and enclosing the wheels.

Another project of full-scale testing (done in cooperation with National Research Council, RTAC, and Transport Canada) demonstrated potential improvements in the manoeuvrability and stability of "pup trailer" combinations through use of the Canadian-developed B-train converter dolly. The configuration uses a more rigid double drawbar to connect trailers — as opposed to conventional A-trains in which the trailer is towed much like a child's wagon.

Experimental Demonstration & Technology Transfer

This group provided technical and publishing services to the division. Major activities are noted below.

Technical and logistical support was provided to project groups within the division in the form of instrumentation, technicians, the chassis dynamometer at Downsview and the test track facility at Centralia.

Nine bridges were instrumented on behalf of the structural research group and the data collected, recorded, digitized and submitted for analysis. Similar data acquisition services were provided in support of studies of wheel/rail noise.

Staff participated in commercial vehicle testing at the Centralia test facility and federal vehicle test centre at

Blainville, Quebec. Also a report was issued on the commercial vehicle accident investigation which provided valuable input to the Uffen Commission on commercial vehicle safety.

Engineers also designed and began to implement a digital control system for the dynamometer, computerizing the system to ensure greater accuracy, safety and economy of operation.

Technology Transfer

This group published 193 items on behalf of researchers in the division and TEMP office, ranging in scope from bumper stickers and research reports to technical manuals.

In the word processing centre, further steps were taken toward the "electronic office."

- The AES Multi-Plus II system was used extensively for bookkeeping as well as text.
- Editors learned fundamentals of the system and most editing of reports was done electronically instead of on paper.
- Typesetting via telephone communications was done routinely. Successful communications were also achieved with consultants using different brands of word processors with the IBM mainframe computer at Downsview.



Rollover testing of a tractor trailer unit

Provincial Highways



The new Norris Whitney Bridge on Highway 14

Northern Region

Construction

Major construction work continues on Highway 11, four laning the Callander Bypass. Construction was completed on Highways 534, 522, 108, 144, 655, 560, 64, 35, 519 and 637.

Recycled paving was also completed on Highway 121 at Haliburton easterly, Highway 11 at Huntsville northerly, Highway 17 at Junction of Highway 6 westerly, Highway 11 at Mattice, Highway 141 between Highway 11 and 69 and Highway 17 east and west of Mattawa.

Structure work was completed on Highways 17, 141, 560 and 572. Structure work continued on Highways 540 and 549, while major bridge rehabilitation work was carried out on Highway 11 at Earleton and Hearst and Highway 141 at Rosseau. Other bridge rehabilitation work was carried out on Highways 11, 121, 17, 522, 101 and 35.

Construction was completed on the first and second grading contracts at Detour Lake Rd. Two new grading contracts were awarded which will complete the construction of this access road.

Maintenance

Summer work was carried out on some 5,635 km of King's secondary and tertiary highways. Two ferries were operated at Moosonee and Gardiner. In addition to routine maintenance operations, projects for gravelling,

priming, surface treating, mulching, crack sealing and asphalt patching were completed.

Winter maintenance was carried out on most of this mileage and privatization in the repair area of the garage. operation was continued. Snowplowing using private plowing units was increased to eleven plows this season.

Municipal

Staff administered various road assistance programs to 132 organized municipalities (one county, two regions, three cities, 35 towns, seven villages, 81 townships, 3 improvement districts), 21 Indian reserves, 112 local roads boards and 11 statute labour boards, including subsidy, development roads and connecting links in organized areas and special and specific allotments in unincorporated areas.

Engineering and Right-of-Way Office

Office staff completed 23 sets of contract plans and documents for a value of \$56,548,000. Approximately 55 per cent was done in-house and 45 per cent by consultants.

They also carried out property acquisitions for the capital construction program and continued with legal, engineering and geotechnical field survey operations to facilitate the program. And as well they carried out environmental and corridor control activities and provided input into the ministry's pavement management system.

Drivers and Vehicles

Staff, under the direction of the regional office, is divided into two

districts: North Bay and Timmins. They served the provincial districts of Parry Sound and Nipissing; the district municipality of Muskoka; the provisional county of Haliburton; the districts of Timiskaming, Cochrane, Sudbury, Manitoulin Island; the regional municipality of Sudbury and the easterly portion of the district of Algoma.

A staff of 73 employees was responsible for driver examination, motor vehicle licence issuing, driver improvement counselling, vehicle inspection programs and enforcement of the Highway Traffic Act, Public Commercial Vehicles Act, the Public Vehicles Act and the Motor Vehicle Transport Act.

A staff of 25 driver examiners and clerical support conducted a total of 20,260 road tests and 39,587 pre-examinations at nine driver examination centres and 19 travel-point locations.

One regional review officer responsible for driver improvement counselling, conducted a total of 1,140 interviews with drivers who had reached the nine demerit point level and conducted a total of 18 hearings.

A staff of 12 vehicle inspectors conducted 5,482 commercial vehicle inspections, 1,620 school purpose vehicle inspections, 119 inspections of church buses, transit buses, "physically disabled passenger vehicles", and highway buses.

They also conducted a total of 1,860 audits and investigations of licenced motor vehicle inspection stations, as well as operated portable mini safety inspection lanes which resulted in the inspection of 2,873 light trucks and cars.



A zone stripper at work on the QEW

A total of 569 vehicles were removed from service for safety-related defects. The audits, investigations and inspection of motor vehicle inspection stations, commercial vehicles and passenger and light truck vehicles, resulted in a total of 596 charges laid under the Highway Traffic Act.

Twenty highway carrier officers conducted a total of 123,306 inspections at five permanent truck inspection stations, four audit truck inspection stations and eight patrol areas. A total of 4,409 reports of suspected violations were completed, with 3,537 resulting in court action being taken.

One motor vehicle licence issuing officer maintained by two ministry employees in North Bay, conducted 26,523 transactions.

The supervisor, motor vehicle licensing agents, conducted 44 site surveys for the installation of 'on-line' computer equipment. Furthermore, 78 agents, clerks and cashiers were trained to operate the equipment for the new vehicle registration system.

Northwestern Region

Construction

During the past year, 15 projects were completed of which three are on Highway 596 leading to Minaki; one included the paving of Minaki Airport. The final section for the reconstruction of Highway 584 north of Geraldton was completed. A 75.5 km section of Highway 527 was paved. A sulphur asphalt mix was used on certain portions for the first time in northwestern Ontario. The re-

construction/resurfacing of other sections of highways included Highway Nos. 552/556, 11, 11-17 and 102.

Work started on the widening of the Thunder Bay Expressway to four lanes, extending from Oliver Rd. to Balsam St., including widening of the McIntyre River structure. Work continued on the first contract of the Kenora By-pass, which is in an advanced stage of completion.

In addition, eight other contracts were awarded, including Highway 101/129; Highway 556; Highway 11; and two on the Bending Lake Road.

Maintenance

Routine summer and winter maintenance was performed over 5,800 km of King's, secondary and tertiary highways. In addition, capital maintenance projects, including bridge and culvert repairs, prime and surface treatment, maintenance crushed gravel were undertaken. The Terry Fox Lookout was completed and opened to the public during a ceremony held June 26, 1982. Also, four salt domes and three separate district garage additions were built.

Municipal

During the year, 70 municipalities and 11 Indian reserves received regular subsidies amounting to \$19,400,000. Office staff undertook six connecting link projects at a cost of \$2,300,000 and one development road project totalling \$500,000. Some \$2,500,000 was provided to 111 local road boards, 11 statute labour boards, 26 Indian reserves (eight in the remote north) and other informally organized groups involved with public roads outside MTC's jurisdiction.

Remote Northern Transportation

Remote northern transportation

office staff operated and maintained 18 airports with new construction at another. Runway restoration was carried out at two of the existing airports. The section also administered the construction of cost shared reserve road projects at nine Indian settlements.

Engineering and Right-of-way

Engineering and right-of-way office personnel carried pre-contract engineering activities for 17 capital construction projects incorporating 87 km of reconstruction and 150 km of resurfacing. Included in this total were six new structures and 19 structural rehabilitation schemes.

In addition, pre-contract engineering activities were carried out for 11 projects involving the reconstruction of 23 km of highway under the ministry's minor capital program. Nine projects were also undertaken on behalf of municipalities which involved new or rehabilitated structures. Various preliminary engineering studies were also carried out.

Drivers and Vehicles

The region's seven vehicle inspectors completed 5,003 mechanic fitness inspections on commercial motor vehicles. In addition, 3,113 vehicles were checked at safety lanes. There were 1,071 inspections performed on school buses.

Highway carrier staff checked 86,765 commercial vehicles resulting in 4,067 charges being laid.

Driver examination and driver control staff conducted 22,421 pre-test examinations and 13,345 road tests for driver's licence applications. The regional driver improvement counsellor conducted 1,215 demerit point interviews and 17 medical hearings.



One of MTC's emergency patrolmen

Central Region

Construction

The section of Highway 403 from Highway 10 to Mississauga Rd. was completed and opened to traffic in the fall of 1982. This completed the entire route from Highway 401 to the QEW at Oakville.

Work on Highway 427 continued with reconstruction of the section between Highway 401 and Dixon Rd. as well as work on advance structures at Finch Ave. The continuation of Highway 404 also progressed with award of the advance structures north of Bloomington Side Rd. The first contract for drainage works was awarded and construction progressed on construction of Highway 410 through Brampton.

Major reconstruction of the QEW from Highway 20 to Highway 403 through the Burlington Beach Strip began with reconstruction of the Beach Rd. and the award of the Highway 2 interchange reconstruction contract. Work on Highway 406 also continued with the completion of the bridge over Twelve Mile Creek, and, reconstruction of the local intersecting streets as well as the award of the contract for the construction of the Highway 406 and QEW interchange.

Work on Highway 401 east of Bowmanville continued with the widening of Highway 115 to Highway 2.

Work on Highway 401 in Toronto continued with the resurfacing of the collector lanes as well as rehabilitation of the bridge decks between Dufferin St. and Islington Ave.

Maintenance

As of March 31, 1983, our highway network had grown by approximately 116 two-lane kilometres during the year to a total of approximately 5,045 kilometres.

We carried out hot-mix patching in Hamilton and Toronto districts for a total of 41,800 tonnes.

In a very mild winter, we used approximately 130,000 tonnes of sand and 66,900 tonnes of salt. These quantities were very close to 50 per cent of those recorded in the previous year. We installed 27 new traffic signals.

On Toronto district freeways, emergency patrols continued to operate, driving approximately 975,000 kilometres, providing assistance to 25,700 motorists, and dispensing a total of 11,187 litres of fuel.

Engineering and Right-of-Way

A total of 50 projects were prepared for contract advertising for various types of highway improvement projects throughout the region. Major designs involved freeway contracts in the Highway 401, 406, 404, 427, 410 and QEW corridors.

The most significant project prepared was the twinning of the Burlington Bay Skyway structure expected to begin construction in the spring of 1983.

Municipal

Staff was responsible for managing the municipal road programs, including overall budget control for the subsidy, King's highway connecting link, and development road programs in Central Region.

During the year, 115 municipalities and six Indian reserves received regular subsidies under the Public Transportation and Highway Improvement Act. In

addition, 16 municipalities received subsidies under the traffic signal program.

Drivers & Vehicles

In 1982-83, staff administered a connecting link program involving 41 construction projects with a provincial contribution of \$4,379,387, and \$427,003 for maintenance in towns and villages.

The development road program consisted of three projects with a provincial expenditure of \$478,186.

In addition to the above, personnel administered the 1982-83 municipal job creation program valued in excess of 1.4 million dollars.

Staff conducted 255,608 pre-test examinations and 213,443 road tests for driver's licence applicants. As well, 415,090 temporary driver's licences were issued. Driver improvement counsellors conducted 20,289 demerit point interviews, 162 medical hearings and 213 accident repeater interviews. In addition, driver improvement staff conducted 11,108 vision tests and 105 medical waiver hearings.

Staff checked 22,875 commercial motor vehicles both at truck inspection stations and carrier terminals. Of these, 2,846 vehicles were removed from service or tagged unfit. A total of 46,673 cars and light trucks were inspected at either permanent or portable lanes and 3,046 vehicles removed from service. Approximately 3,876 school purposes vehicles and 2,029 commercial buses were inspected. Also, 13,133 audits of motor vehicle inspection stations were conducted.

Staff inspected 1,633,689 commercial motor vehicles which resulted in 10,617 court convictions.



Snowplowing is a vital service

Southwestern Region

Construction

With completion of construction of Highway 402 between Christina St. in Sarnia and the Blue Water Bridge Plaza and the award and completion of a paving contract through Caradoc Township, the Minister officially opened Highway 402 on Nov. 10, 1982.

This completed construction of the 98 km length of Highway 402 which provided a direct freeway link between Highway 401 west of London and Sarnia and the U.S. border.

Other major contracts awarded included: the granular base and paving of the new Highway 3 connection between Leamington and the Essex Diversion — 9.6 miles.

Reconstruction of 3.9 km of the former Oxford County Rd. 6 from Oxford County Rd. 9 (old Highway 2) northerly to Highway 2 (Governors Rd.). This contract included the construction of structures to cross the CN railway and Thames River and provided a 1.2 km truck climbing lane. When completed, this contract, together with work completed previously, will provide a direct connection between Highway 2 west of Woodstock and Highway 401, providing a truck by-pass route of Woodstock.

Reconstruction of Highway 7 from Frederick St. in Kitchener easterly for 2.3 km also took place along with a new interchange at Highway 11 and Oro Township Concession Rd. 9 was constructed.

Resurfacing/recycling contracts were

awarded on Highway 6 from Dornoch to Chatsworth — 15.8 km; Highway 6 from Hepworth northerly — 20.0 km; Highway 93 from Highway 11 northerly to Craighurst — 11.3 km; Highway 19 from Milverton to Tralee — 14.1 km; Highway 86 from Highway 23 westerly to Huron Road 12 — 20.3 km; Highway 23 from Teviotdale to Palmerston — 8.9 km; Highway 401 from Elgin Rd. 8 easterly to Highway 4 — 28.2 km; Highway 76 from West Lorne northerly to Highway 2 — 12.1 km; Highway 3 from Aylmer to St. Thomas — 11.6 km; Highway 73 from Aylmer southerly to Port Bruce — 13.9 km.

Highway 3 from Kent County Road 5 westerly to Leamington — 26.8 km; Highway 79 from Highway 7 northerly to Highway 21 — 9.0 km; Highway 21 from Highway 3 at Morpeth northerly to Thamesville — 20.6 km; Highway 2 from the Middlesex/Kent County boundary to Thamesville — 13.6 km, and Highway 79 from Highway 2 northerly to Bothwell north limits — 3.5 km.

Other contracts awarded called for:

Removal of the structure on Highway 3 over an abandoned railway, and reconstruction of Highway 3 at Blenheim's southwest limits. When completed this contract will create safer driving conditions on Highway 3;

Construction of truck inspection sites on Highway 40 north of Wallaceburg and Highway 2 between London and Thamesford. These sites allowed for installation of temporary weigh scales which enabled the MTC staff to better enforce highway carrier regulations;

Installation of 28.5 km of perforated pipe subdrains on Highway 401 between Tilbury and Windsor. This contract was part of a continuing program of preventative maintenance; and,

Also under the capital program, contracts were awarded for structure rehabilitation and deck waterproofing on Highways 401, Highway 7 and 85, Kitchener and Highway 6, Guelph.

Maintenance

In addition to routine summer maintenance, new exit numbering was installed on freeways; three sand domes constructed and our crack sealing and slope improvement programs (to reduce snow drifting) continued.

Also, 33 projects were completed under the job creation program, including refencing contracts on Highways 400 and 401; a five-bay addition to our Strathroy patrol garage and a new four-bay patrol garage and office at Elsinore.

The 1982-83 winter season was unusually mild with snow accumulations well below average. Expenditures were 15 per-cent less than the previous year, although opening of Highway 402 and additional four-lane sections of Highway 400 increased regional distance by 103 km; sand and salt usage was down by 60 and 33 per-cent, respectively.

Municipal

A total of \$119,991,400 in subsidies was paid to counties, regions, cities, towns, villages, townships and Indian reserves in Southwestern Region. Approximately \$4,668,500 was expended on 38 connecting link projects and \$838,600 on five development road projects. Additionally, \$2,201,900 was provided to fund 29 job creation projects.

Drivers and Vehicles

Staff conducted 84,861 road tests for driver licence applicants and 125,571



Keeping the highways free of ice

pre-examinations. As well, 24,649 replacement driver's licences were issued. Driver improvement counsellors conducted 8,379 demerit point interviews. Demand for driver exam services continued to decline.

Staff checked 11,002 commercial motor vehicles both at truck-inspection stations and carrier terminals. About 4,110 school purposes buses were inspected along with 1,025 commercial buses. A total of 10,881 cars and light trucks were inspected at either portable or mini-lanes. In addition, 7,197 audits or motor vehicle inspection stations were carried out.

Staff inspected 659,017 commercial motor vehicles which resulted in 15,365 convictions.

Eastern Region

Construction

The structural steel, concrete deck and asphalt paving were completed on the Norris Whitney Bridge on Highway 14 across the Bay of Quinte, south of Belleville. The new structure was officially opened by Minister James Snow on Dec. 4, 1982.

With the completion in September, 1982, of the 15.3 mile paving contract on new Highway 17, from 9.5 miles west of Cobden to Renfrew County Rd. 17, the Pembroke Bypass was finished. This was the last bypass required in MTC's program to improve traffic flow on the Trans-Canada Highway between Ottawa and North Bay. It was officially opened Sept. 10, 1982 by the Minister.

Reconstruction of an 8.4 km section of Highway 33 from 1.3 km north of

Frankford, northerly to Stirling, was completed in July, 1982. As well, reconstruction of an 11.0 km section of Highway 33 from Trenton southerly, was completed in September, 1982.

A resurfacing contract from 0.9 miles west of Highway 127, easterly 12.1 miles to Madawaska, was completed in September 1982.

Reconstruction or resurfacing was also carried out on Highways 2, 7, 14, 16, 17, 29, 31, 33, 60, 62, 401, 417, 506, 507, 511, 512, and 515.

Engineering and Right-Of-Way

Twenty-six capital construction projects were prepared for award in 1982. An additional 20 miscellaneous projects were also processed.

The major study of the Highway 16 corridor to Highway 417 was completed, and awaits approval. A study at the Ottawa Queensway and St. Laurent Interchange was initiated in conjunction with the proposed Regional Municipality of Ottawa Carleton transit way construction.

A parallel street study between MTC and RMOC was started in the area between Rochester and Main Sts. on the Ottawa Queensway where ramp revisions and parallel street capacity will be reviewed. An Ottawa Queensway freeway management study will be co-ordinated with the parallel street study.

Maintenance

The major winter activities of this region consisted of 660,770 kilometres of snowplowing, 81,833 tonnes of salt, and 34,006 cubic metres of sand spreading.

Summer maintenance activities covered 4,119 kilometres of centre line and 4,720 kilometres of edge-line painting. Some 14,219 trees and shrubs were planted, and 3,037 hectares of brush and weeds sprayed.

Two traffic signal installations were erected, and five updated. Fifty-three luminaires were also erected.

The districts issued 493 building permits, 1,278 field advertising signs, and 430 guide signs were also processed.

Municipal

A total of \$89,425,268 in subsidies were paid to regions, counties, townships, urban municipalities and Indian reserves. In addition, the region spent \$2,153,681 under connecting link agreements, and 28 development roads received \$3,783,364.

Provincial contributions were also made to: airport programs — \$172,838; ferries — \$797,810; and traffic signals — \$355,783.

Drivers and Vehicles

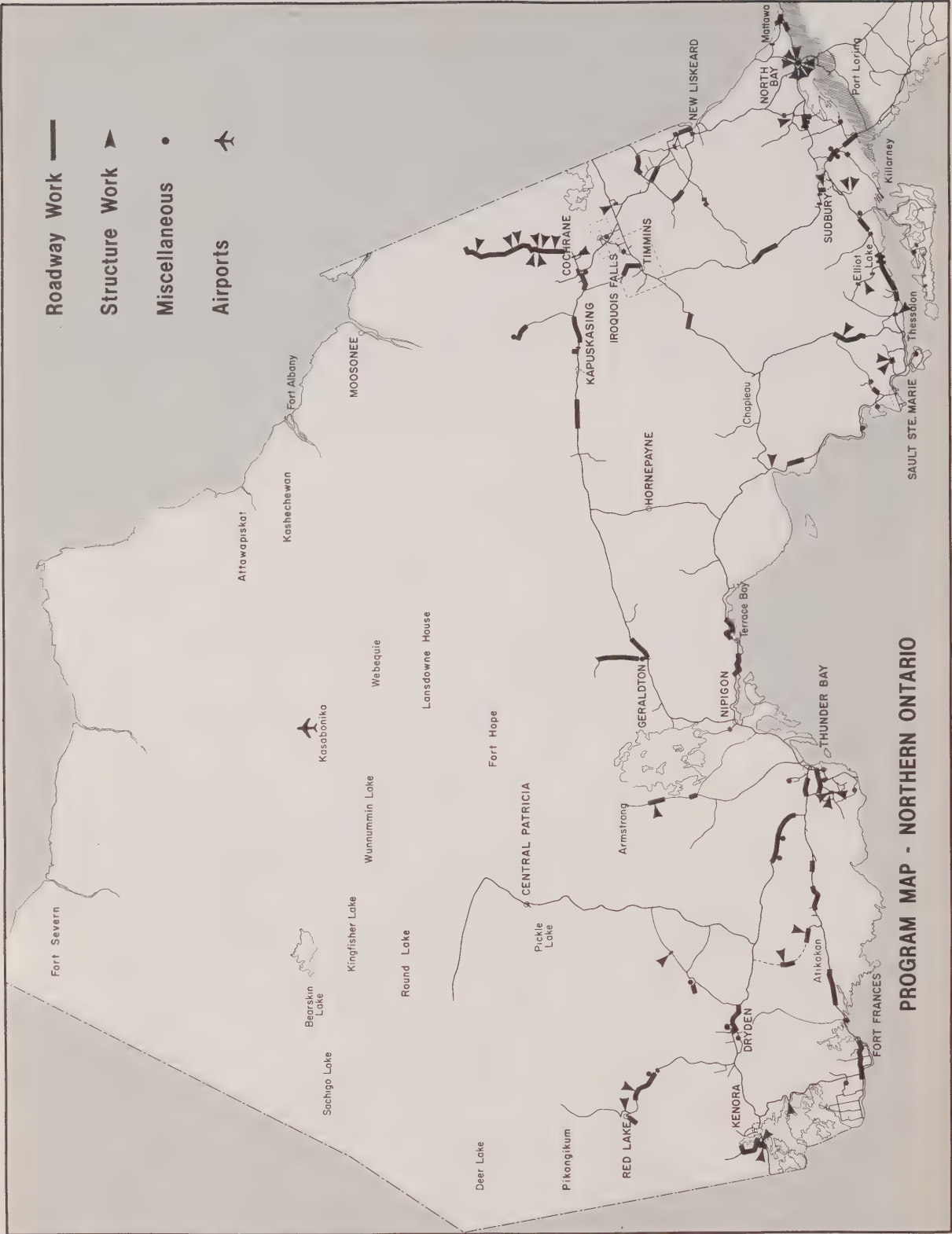
Driver examination staff conducted 96,808 pre-examinations, and 50,759 road tests for driver licence applicants. Driver improvement counsellors held 3,817 demerit point interviews, 68 hearings and 26 accident repeaters.

Vehicle inspection staff performed 5,268 motor vehicle inspection station audits; inspected 5,268 commercial motor vehicles, 3,877 school buses, and 469 other types of buses. Portable lane activities included the inspection of 3,449 vehicles of which 858 had serious defects.

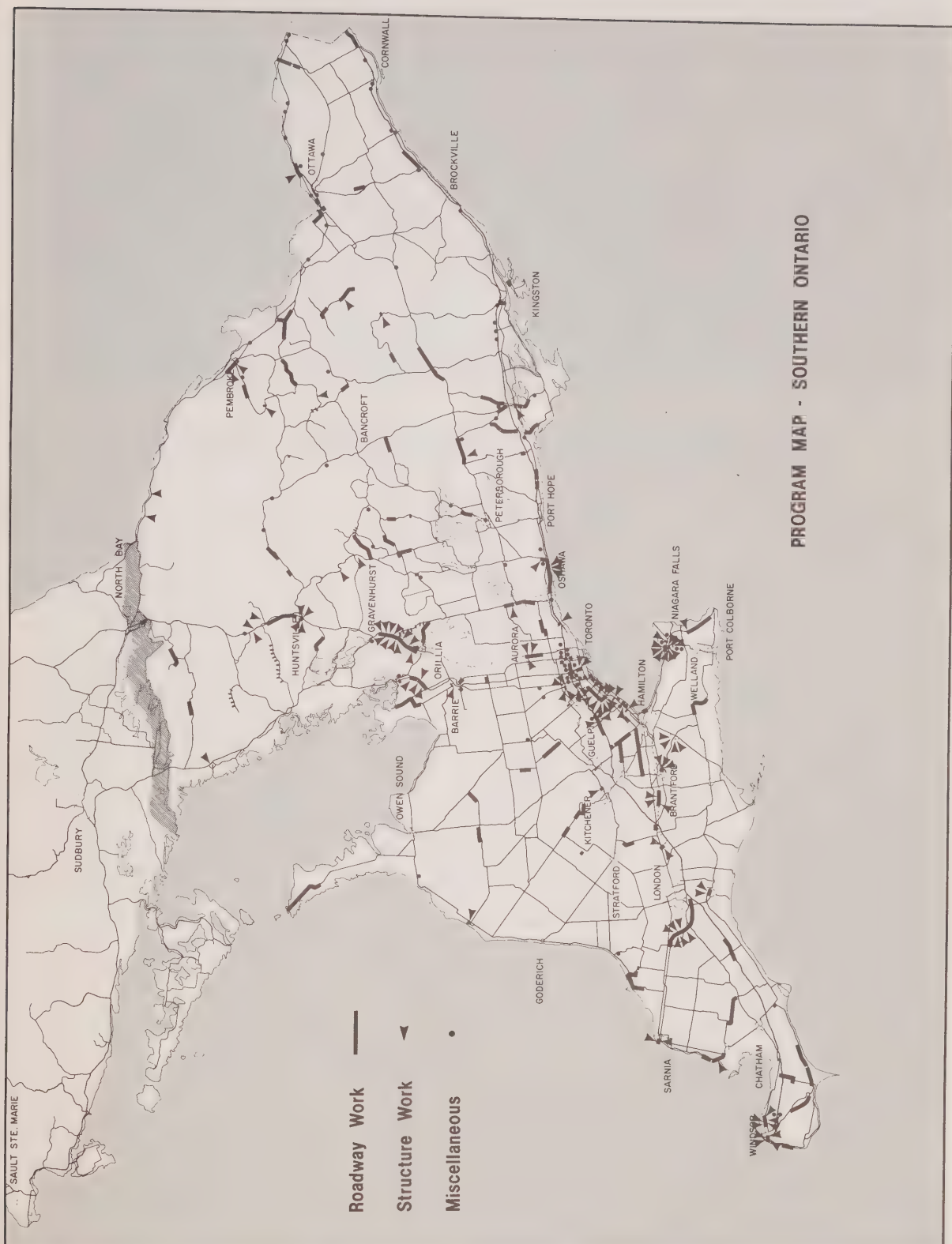
Despite reductions in highway carrier complement, staff inspected 332,235 vehicles at truck inspection stations and designated area patrols.

The establishment of a regional investigations and prosecutions office in May 1982, resulted in the completion of 100 compliance audits, and 281 investigations of unlicensed trucking operations.



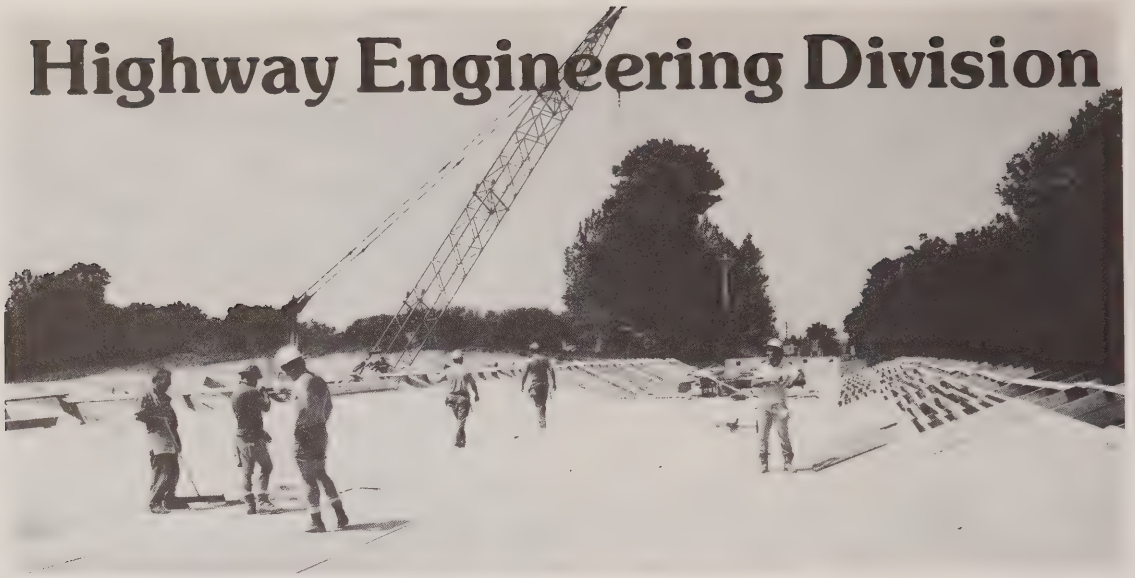


PROGRAM MAP - NORTHERN ONTARIO



PROGRAM MAP - SOUTHERN ONTARIO

Highway Engineering Division



Engineering Materials Office

Bituminous Section

Asphalt materials testing, asphalt mix design and asphalt mix testing was carried out by staff on behalf of Central Region for construction contracts in progress.

Technical advice and consultation in all aspects of bituminous materials, construction and maintenance was provided to the regions and districts, and to municipal agencies on a limited basis.

Work also continued on the development of performance type specifications for bituminous construction. A directive was prepared with guidelines for the acceptance/rejection of hot-mix under the current specifications.

Further work was carried out in the study of crack filling materials and methods and a third interim report was issued. Three new crackfilling materials were added to the appropriate designated sources list.

In co-operation with Hamilton-Wentworth Region, an experimental surface treatment designed for traffic volumes over 4,000 AADT was constructed with steel slag. The system looks promising and has the potential to be 30 per cent cheaper than conventional hot-mix resurfacing.

A stress absorbing membrane interlayer (SAMI) was constructed over concrete pavement as part of a pavement resurfacing project on Hwy. 77 in the SW Region. It's a rubberized-asphalt surface treatment, utilizing spraying equipment specifically

designed to handle the highly viscous rubberized material.

Correlation testing in cooperation with private and public agency laboratories was completed on asphalt cements, liquid asphalts, asphalt emulsions, mix designs, extraction tests and mix quality testing. As a result of Ministry participation in a joint producer/consumer task force, a bituminous testing laboratory certification program took place.

Concrete Section

Through participation in the activities of various MTC committees and task forces, the provision of technical assistance to regional staff and the development of new policies, staff continued to play a major role in the bridge rehabilitation sub-program.

A study of the condition of concrete bridge decks in Ontario on MTC's highway network was completed last summer. Conclusions showed the total

cost needs of bridge deck rehabilitation over the next ten years is approximately \$200 million.

A two-day bridge rehabilitation seminar was organized in October in Toronto with MTC and the Consulting Engineers of Ontario as co-sponsors. Two hundred technical staff attended the seminar representing contractors, consulting engineers, municipalities, regions and head office.

Work continued on development of performance type specifications for concrete construction. In SW Region similar specifications were simulated through additional test programs on composite and concrete pavement with a significant portion of the concrete testing work carried out by the private sector. Discussions were held with industry on the transfer of process control functions e.g. concrete mix design, to the contractor.

A policy was implemented allowing the use of ground granulated iron blast furnace slag as a partial replacement for portland cement. The main benefits to the ministry are a small, but

Chemicals Section

The section participated in revision of the specifications used for structural maintenance painting and established designated sources lists of approved coatings for Canadian government specified products and proprietary products.

The specification for non-coning traffic paint was revised to alleviate and eliminate application problems. As well, technical reports were published on evaluations of four proprietary

coating systems; one coating system was approved for MTC use.

Section staff continued its activities on the provision of expertise to all regions, the evaluation and quality assurance testing of traffic paints and the testing of privately and MTC-owned water wells as part of the ministry's efforts to minimize or prevent salt contamination caused by its operations.



Highway 406 construction at St. Catharines

worthwhile, reduction in the cost of concrete construction and more flexibility on projects where concrete with special properties is required.

Work continued on aggregates from northern and eastern Ontario which exhibit poor durability when incorporated in concrete. The objective of this work is to develop ways of using such materials and/or to designate which aggregates are unacceptable for concrete construction.

Pavement and Foundation Design Section

Foundation Unit

Foundation investigations were carried out and reports for foundation design and construction prepared for a total of 80 structure and earth/rock work projects. Of those, 60 were done by in-house staff and 20 by geotechnical consultants working under staff direction.

In addition, 70 foundation reports for inclusion in construction contracts were also prepared. Preliminary and final foundation design drawings were reviewed for 75 projects scheduled for construction in the next two years. Specialist advice and service was provided to MTC; municipal and some other agencies on all aspects of foundation design and construction.

This included some 30 MTC and municipal construction problems where site inspection by senior staff was necessary, in order to provide recommendations for immediate remedial action. Such projects included embankment and other earthwork failures, culvert and tunnel dewatering problems.

A detailed and extensive pile driving and load testing of both compression

and extraction tests were performed at the proposed site of the Burlington Skyway. In addition, monitoring of pile driving was carried out by the use of pile analyser. On selected piles, the lateral load tests were performed to determine the lateral capacities of the vertical piles in the subsoil.

Feasibility studies are already in progress for the GO-ALRT system, and approximately 60 additional foundation investigations will have to be carried out during the next year, which will impose heavy burdens on foundation staff.

Seven different instrumentation projects were being monitored to determine settlements due to rock fill compressibility and consolidation of compressible subsoil. Also, a new project was initiated to monitor earth pressures and vertical and lateral deflections of a structure abutment founded on compacted granular soil.

Pavement Unit

A 16 km long experimental concrete pavement section was designed and constructed. It incorporated a number of different pavement and shoulder designs, which will be closely monitored to evaluate their long-term performance.

As a result of the experience acquired by the ministry in hot mix recycling, new guidelines were developed for recycling of asphalt pavements providing more detailed and up-to-date design and construction information.

Pavement skid measurements were carried out utilizing a brake force trailer at 218 sites on 2098 km. The number of tests were 12,600. Of these, 13 sites were tested for the municipal agencies. Pavement roughness measurements were conducted using the Mays Meter on 3,850 km of highway on 122 projects.

Soils and Aggregates Section

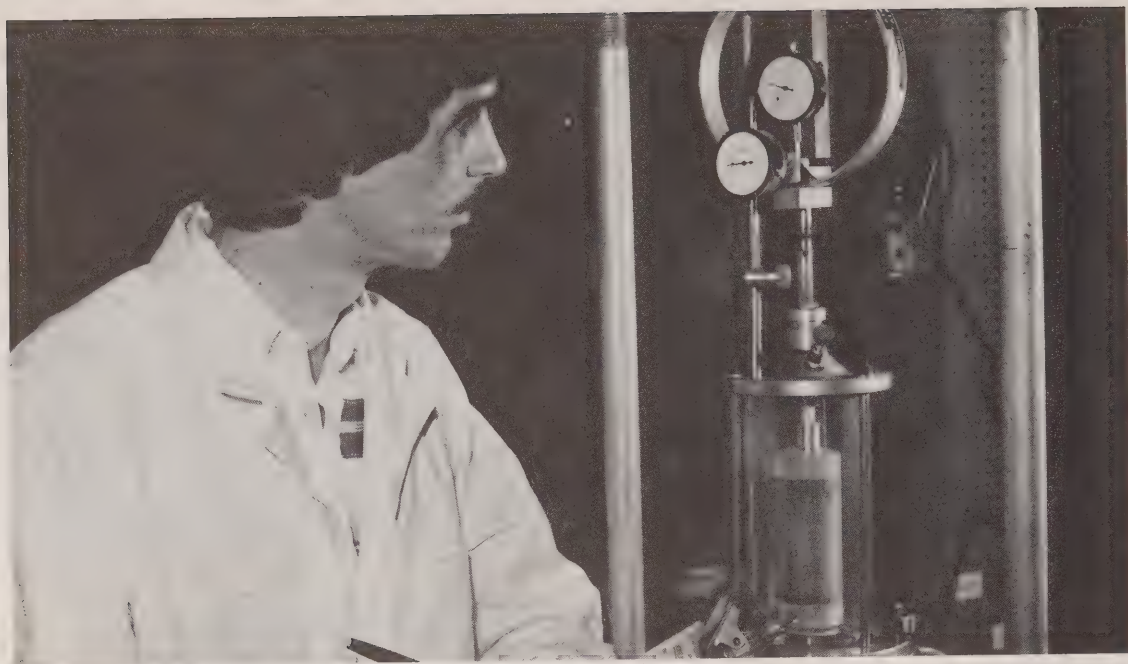
Major progress has been made in introducing statistically-based specifications for the control of the quality of granular materials used in MTC work. This is a more equitable approach for both the contractor and ministry. In addition, acceptance testing is to be done at the point of delivery, thus encouraging the contractor to carry out his own process control.

Detailed field and laboratory work was carried out on alternate sources of high quality and skid resistant hot mix aggregates. This will provide financial benefits because of the identifications of competitive sources.

A voluntary participation, correlation program to measure the relative accuracy of testing of soils and aggregates by municipalities and private sector laboratories has been successfully instituted. To date, the number of participants has been modest. However, as the benefits become known, the number should increase. It is also anticipated that an industry association will assume responsibility for the administration of this program in the future.

Programming was completed in the microcomputer, and it proved to be an effective addition to laboratory operations. Northwestern region installed a similar piece of equipment, and took advantage of this section's expertise and programs.

Technical reports were published on the following subjects: short cut gradation test procedures, acceptance sampling and testing of granular materials, and description of rock for engineering purposes.



At work in the lab

Highway Design Office

Staff of the re-organized highway design office was responsible for five major areas of highway design policy — preliminary design; detail design; design automation; drainage and hydrology and highway standards.

Preliminary design staff issued policy on design standards and guidelines for secondary highways; produced new chapters of geometric design standards for Ontario highways manual, published purchase and management of technical consultant services manual, processed 260 legal agreements for consultant assignments and processed 185 design criteria. Also, a number of policy directives were prepared.

Detail design staff continued the preparation and development of contract design procedures manuals and new contract documentation practices for plan quantity payment and item coding; included a new energy absorbing median barrier in a ministry contract; co-ordinated municipal design courses and provided site specific detailed design for noise barrier installations.

Design automation personnel were responsible for computer systems development and application and entered into a major study for the introduction of computer aided design and drafting (CAAD) as an aid to the highway design process. Implementation of this technology, if found to be practical, can be expected in two to three years.

Drainage and hydrology staff issued

a major chapter of the drainage manual on hydraulic design of culverts and presented training workshops to regional staff. Completion of a major research project on road and bridge deck drainage systems were incorporated in the chapter on storm sewer design, and progress made on the integration of environmental concerns into the drainage design process.

Highway standards staff prepared up-to-date standard specifications and drawings for the design, construction, maintenance and safety of highways and monitored regionally developed special provisions and special design standards. Progress was made in development of uniform Ontario standard specifications and standard drawings in conjunction with the Municipal Engineers Association for implementation of these standards; target date is the beginning of the construction year 1984. MTC standards will then be phased out.

The abbreviations and symbols manual was completely revised and scheduled to be printed in the late spring of 1983. Five new noise barrier designs were reviewed and approved for MTC use.

Environmental Office

Staff was responsible for the development and coordination of natural and cultural environmental policy, procedures and guidelines for the ministry's programs and agencies.

During 1982-83, interpretation and clarification identified environmental

assessment matters was provided to the regional planning and design sections, the municipal and air offices, the communications division, Toronto Area Transit Operating Authority, the GO ALRT program and the Urban Transportation Development Corporation.

Developmental work continued relative to the modification of internal policies and procedures for MTC projects requiring individual approval pursuant to the Environmental Assessment Act, RSO 1980, in an attempt to eliminate time delays associated with the former two-stage submission process.

Work began, as well, on the review of the existing environmental assessment class procedures and submission in the next fiscal year, of a new provincial highways program environmental assessment class document for approval by the minister of the environment.

Work continued on preparation of technical guidelines and policy on four important environmental factor areas: salt, noise, soil erosion and groundwater. For these and other environmental factors, staff provided expertise to internal ministry units and to external agencies. Preliminary work was initiated on an environmental handbook for use in highway program areas.

Technical development section staff also administers the environmental quality control program. In 1982-1983, they were involved in training of construction staff, the monitoring and inspection of construction projects and preparation of environmental specifications.



The new Highway 403/401 interchange

Structural Office

The office was reorganized during the year, with the four operating sections being replaced by design and field services sections. The new organization is better able to serve the increasingly important aspects of structural maintenance and rehabilitation.

Field services staff have started to implement the early recommendations of the task force on procedures for structural maintenance and rehabilitation, and assumed responsibility for the designated sources lists for expansion joints and bridge bearings.

Design section personnel completed the alternative designs and drawings for the twinning of the Burlington Skyway. For the second year, the size of this project meant that a relatively small number of other bridge designs were carried out by design section staff and a high proportion assigned to consultants.

The designs for 19 bridges were completed in-house and those for 35 completed by consultants, with technical direction provided by structural office personnel. The total work load, and proportion done by consultants — 65 per cent — matched the previous year.

In the approvals section, the number of new municipal bridge designs checked totalled 137, a 25 per cent drop compared to the previous year. The trend towards more large complex structures continued, however, and among a number of major structures was a 106 m. span steel arch over the English River, checked at the request of the Ministry of Natural Resources.

The joint project with the Ministry of Citizenship and Culture on heritage bridges continued, and about 50 were assessed and rated for heritage attributes.

Work proceeded on the second edition of the Ontario Highway Bridge Design Code (OHBDC). The public comment stage was completed and final changes made to the text prior to publication later in 1983. In the procedures section, major computer development work continued to be the Ontario Modular Bridge Analysis

System (OMBAS). This modular system is required for the full implementation of the OHBDC.

Staff was increased for this project and, with assistance from Computer Systems Branch and consultants, work is progressing towards the completion of phase 1 by the end of 1983.

Surveys and Plans Office

In the surveys section, work continued with establishment and evaluation of 406 horizontal control monuments on the Ontario co-ordinate system; 123 horizontal control stations were established for construction; 223 precise bench marks on geodetic datum were established and added to the vertical control system.

The legal documentation group examined 1,004 legal plans and 284 km of highway were designated as controlled access. The total is now 7,438 km. Staff training continued in surveying and drafting with eight regional staff successfully passing qualifying exams.

The aerial surveys section delivered 213 photogrammetric engineering plans as follows:

- small and medium scale (1:10,000 and 1:2,000)
- 22 plans in-house and seven plans by private mapping firms;
- large scale (1:500 or 1:000)
- 124 plans in-house and 60 plans by private mapping firms; and
- a number of cross-section projects were also completed in-house.

During the fiscal year 2,050 km of aerial photography were flown by private contractors for 22 mapping and 16 non-mapping projects. As part of this total, 255 km of aerial photography was completed for the GO-Transit ALRT projects. Most of the mapping for this will be done by private companies during 1983/84.

The remote sensing unit continued work on new policies and procedures and provided professional advice and services to the regions. A consultant assisted with the development of remote sensing criteria for locating boulder deposits.

The proceedings of the second national workshop on engineering applications were published jointly with the Canada Centre for Remote Sensing. Liaison with the centre continued on technology transfer and in accessing new, potentially-effective sensors and image analysis techniques.

The section also provided aerial photographic mosaics and image library services to the Ministry and others. 1,331 m² of mosaics and related products were produced and 1,532 requests for image library services were processed.

The cartography section continued production work on the new Ontario transportation map series at scale 1:250,000 which will replace the present county/regional municipality lithograph map series at the same scale. The first three were scheduled for printing in the summer of 1983.

The following requests were completed: 66 for cartographic services resulting in 345 base maps; 141 base film duplicates; 15 miscellaneous graphics and 20 for road information compilation. The value of map base film sales to the public was \$1,592.00.



The all wood bridge at Sioux Narrows

Research & Development Branch

Staff conducted physical research in three principal areas — structures, pavement and materials and environment. Most of it was done in-house, but more than a third was contracted to the private sector or universities under the Ontario joint transportation and Communications research program.

Activity concentrated on ways to improve the performance and durability of the highway system by making better use of existing techniques and materials. Another major focus was application of new technology to traditional maintenance and rehabilitation problems, in particular the repair of bridges.

Pavement Research

Work advanced on the "weigh-in-motion" truck scale project on the 401 near Whitby.

All vehicles passing over the scale were weighed and the measured axle weights compared with the parameters of the Ontario bridge formula. Any truck violating such parameters was "frozen" on a video screen in the weigh station and selected for static weighing and inspection.

The computer also stored all truck data in tabular form that may be retrieved by telephone link from Downsview. Diagnostic analysis of system performance can also be done by remote telephone link.

Another project, in co-operation with Ottawa district, studied crack-sealing performance and techniques. The study showed traditional techniques

and materials didn't work very well. New materials are needed which will adhere to the pavement like a "band-aid" and be capable of stretching as much as 200 per cent in low temperatures.

A highlight was the Canada/Japan workshop on paving in cold areas. Co-sponsored with Transport Canada and the Public Works Institute of Japan.

Structural Research

Staff continued work on revision of the Ontario Highway Bridge Design Code, conducting research and analysis as a basis for code provisions and working with the development subcommittees to further refine the text. Publication was anticipated in the fall of 1983.

The historical Sioux Narrows bridge was of significant interest again this year. Past activity had proven the basic soundness of this, the longest single-span wooden bridge in the world and, this year, the deteriorating wood deck was replaced by a very strong, transversely prestressed wood deck system developed by structural research.

A highlight was winning of the prestigious Moisseif Award from the American Society of Civil Engineering for a paper on load testing a bridge.

Materials and Environment

Materials Research

Staff conducted research mainly on the durability of reinforced and prestressed concrete structures and the development of methods to identify, control and repair corrosion-induced

deterioration. Highlights of the year included:

- Four cathodic protection systems were designed and installed on the substructure of the Burlington Skyway Bridge. Based on observed results, second-generation designs were developed to further improve performance.
- A joint study with Queen's University examined the effects of slag cement on corrosion in reinforced concrete. The study indicated slag cement may reduce the susceptibility of reinforcing steel to corrosion.
- The research program to find ways of detecting deterioration of bridge decks under asphalt road surfaces was completed. It was concluded that high technology techniques such as radar scanning and thermography offer dramatic improvements in the ability to diagnose bridge deck problems.
- In November, a seminar on "bridge rehabilitation" took place in co-operation with the Consulting Engineers of Ontario.

Earth and Environment Research

This group researched techniques to improve the use of earth resources in highway building and minimize environmental impacts resulting from highway construction or operations. Activities for the year included:

- Completion of two special reports on the use of remote sensing techniques to detect buried granular deposits, and determine measures of water quality. Interim reports were also issued on the surveillance by remote sensing of the environmental effects of highway facilities in southern Ontario.
- A feasibility study determined the viability of permanently establishing native sedges on infertile sandy



New sound barriers alongside a freeway

roadside slopes in northern Ontario. A test plot experimental phase will follow.

- New testing methods for aggregates were developed which were simpler and cheaper to perform and yet gave better indications of field performance.
- During the year, a report was prepared summarising work of the last few years to optimise the use of de-icing chemicals and investigate their environmental impacts.

Highway Environment Research

Staff was involved in a variety of research relating to the pavement surface, noise, illumination, and roadside appurtenances.

Highlights included actual measurements of pavement surface reflectance, using the photometer developed in association with the University of Toronto; further development of noise barrier science with concentration on acoustic effectiveness, design procedures, and the influence of T-shaped tops and soft ground covers.

Contract Management Office

Staff were responsible for development of new policies and procedures related to contract management, quality assurance, manpower management and staff training required for MTC construction activities. The major thrust for these policy matters included: development of performance specifications; review of contract staffing; and, contract document review process.

Staff were also responsible for preparation of final tendering documents for 248 contracts and

provided the official interpretation and clarification to contractors during the bidding stage. Verification of quantities supporting final ministry payments to contractors became an office activity.

Property Office

Policy and procedures for appraisal techniques, acquisition of property, the rental, management and disposal of surplus lands and the quasi-legal aspects of the purchase of real estate in the title-searching and conveyancing functions are developed by office staff.

Using these policies and procedures, staff in five regional offices negotiated 1,099 amicable property settlements. The ministry expropriated 245 properties to obtain title for land required to permit contracts to proceed.

Personnel carried out periodic audits of the five regional property sections to ensure adherence to proper policies and procedures and, in addition, provided technical advice and expertise when requested by regional staff.

The office has responsibility for the resolution of all outstanding claims which may proceed to the Land Compensation Board for arbitration. The ongoing caseload involves about 70 properties with decisions handed down, or negotiated settlements procured, in about 18 cases during the 1982-83 fiscal year.

Another major responsibility was to monitor and review property appraisals carried out by regional staff and fee appraisers. This involved some 213 desk reviews of which 34 were arbitration appraisals. An additional, 103 field reviews were carried out of which 24 were regional requests, 45 were reviews of staff appraisal reports and the balance of 34 were arbitration reviews.

MTC expended \$18,110,726 in payment of compensation in acquiring title to lands required for highway projects. An additional \$487,513 was paid to owners affected by expressways, subject to cost-sharing agreements between the ministry and municipalities involved.

Revenue of \$6,379,778 from the sale of surplus lands and \$660,554 from leasing properties was received.

The ministry's formal training program consisted of courses involving appraisals and negotiations to which both this ministry and MGS participated. In all, 30 staff members attended the advanced appraisal course, while three participated in a probationary agents courses and two completed the intermediate agents courses.

Estimating Office

Estimating staff operating with a complement of 24, prepared the official estimate on 288 contracts with a tender award value of \$284,670,549. Recommendations for award were made to senior ministry officials on 285 contracts and non-award on three.

Personnel also produced 120 construction cost comparisons, made recommendations for cost effective design alternatives, 280 contract item unit price negotiations and provided 593 preliminary project value estimates for the multi-year program.

They developed input factors for the micro impact evaluation system for roadway and bridge construction as well as co-operating with the private sector and other governmental agencies in construction cost and quantity related matters.

Finally, they prepared reports on unit bid prices, cost per kilometre of construction, equipment rental rates and minimum truck haul rates for internal use and outside agencies.

Highway Operations and Maintenance



Highway Operations and Maintenance Division personnel were responsible for development of policies and procedures, and provision of technical leadership and functional guidance required for the maintenance and operation of the provincial highway system. The division consists of the Maintenance Branch, traffic management and engineering office, equipment engineering office and the corridor control section.

Maintenance Branch

Personnel provided direction to the regions and districts required for the maintenance of the provincial highway system. The branch consists of the productivity and development, maintenance management and signs and building permits sections.

Productivity and Development

This section was comprised of three units: special maintenance services, landscape operations and landscape planning units. Accomplishments in their respective areas are listed separately following the miscellaneous items.

General Activities:

Participation in the Canada Ontario Employment Development Program was initiated with over 60 maintenance projects developed and submitted to the program secretariat for approval. Project funding and implementation procedures were also drafted.

Ministry inputs were also prepared and submitted to the Ministry of the Solicitor General for the Provincial Nuclear Emergency Plan with emphasis on the development of evacuation plans and procedures for the provision of back-up communications and highway maintenance and closures.

A study report and policy directive was prepared requiring the staged shut down of existing overhead sign illumination and describing criteria for the limited use by exception of illumination on new sign structures. This significantly reduced power consumption, capital and maintenance expenditures and improved worker safety.

Coordination and resources were provided for the preparation of cabinet documents describing a policy for the provision and maintenance of rest/picnic/information sites. Implementation will proceed after a further review by Management Board and with participation by MNA, MTR, MNR and MTC.

The ministry's "Save 10" energy conservation program was successfully completed, primarily through equipment conversions to diesel motors, vehicle downsizing, facility retro-fits and operational refinements. This initiative was continued on an informal basis.

Head office guidelines for development and maintenance of patrol yard and truck inspection facilities, were consolidated within Maintenance Branch, which addressed all issues relating to maintenance, contamination, design review, standards and specifications, funding and program development.

Special Maintenance Services Unit:

A comprehensive report on the performance or reflective pavement marking tapes was completed and circulated to all regions. It resulted in applying and monitoring performance under actual traffic conditions over a four-year period. The durability and effectiveness of pre-formed, cold applied, self-adhesive tapes were examined and criteria for their use was established.

An extensive field evaluation of traffic paints was carried out in eight districts to determine the relative performance characteristics and cost effectiveness of MTC approved paints. Tests indicated they had superior durability. Results suggested the need for some revisions to our traffic paint specifications. The cost effectiveness of this more expensive paint based on durability was still under review.

Staff evaluation of more durable pavement-marking products continued with the application of a cold-applied acrylic material for stop blocks and other markings at several intersections in Toronto District. Results were encouraging. They showed a much higher resistance to wear than standard traffic paints. The performance of this material at these locations continued to be monitored.

The conversion of MTC's zone striper fleet to a hot-paint operation continued. Also, as a result of assessing our striping requirements on a regional basis, two striping units were taken out of service. The ministry had 17 stripers, 15 hot-paint and two standard-paint machines operating.

A report on the field evaluation of a variety of flexible plastic delineator



MTC crews carry out continual maintenance

posts, extending over several years, was completed. For certain limited locations, such posts have been accepted as a viable and economical alternative to MTC's standard steel delineator posts. A specification was developed for future purchases of this new product.

Staff participated in a regional highway services meeting in North Bay, and a similar provincial seminar conducted by the Maintenance Branch; and visited a number of districts providing expertise and assistance on maintenance problems and procedures.

New responsibilities were assumed for the evaluation of new products and systems, and the monitoring of facilities maintenance activities and issues.

Landscape Operations Unit:

As in previous years, landscape ops staff continued active involvement in the area of roadside vegetation management. During the year, an audio-visual slide presentation was prepared for training purposes for highway construction inspectors involved in seeding operations. The slides detailed the inspectors' role and duties based on the ministry's revised seeding specification.

A consultant study was initiated to evaluate the potential use of sedges as a vegetative ground cover on sandy infertile soils to determine if this type of plant could be considered as a replacement for legumes which are presently used, but which may not survive maintenance operations. This was an ongoing study.

A process was initiated to certify all contractors' hydroseeding equipment to ensure they met the requirements of

the ministry's revised seeding specification. As a result, most contractors had their hydroseeders certified and an official ministry certification plate installed.

Staff issued policy directive C-131 on seeding and mulching on roadside rights-of-way disturbed by construction or maintenance activities. The policy provided direction to design, construction and maintenance staff in revegetating these areas.

In an effort to further privatize landscape operation activities, a new specification was prepared to allow contracting of maintenance operations for newly planted trees. One contract was called and awarded with satisfactory results. Additional privatization in this area is contemplated in future years.

A new procedure for the decontamination and disposal of pesticide containers was developed and formalized in a policy directive.

Landscape Planning Unit:

On behalf of the regional offices, staff prepared 24 landscape plans for completion in the spring of 1983. Two were designed by consultants. In addition, four landscape contracts were inspected by landscape architectural consultant firms.

In addition a new policy directive outlining acceptable limits of landscape funding on capital construction projects was issued.

Landscape planners also contributed to the capital construction program by providing an evaluation, assessment and interpretation of natural environmental factors relative to the impact of new route alignments, reconstruction or highway upgrading

on the landscape. During preliminary and detail design stages, landscape planners also provided landscape development design advice, techniques and information on 78 projects relating to highway design, construction and maintenance.

New responsibilities were assumed for the monitoring and standards preparation relative to the facilities development program.

Maintenance Management Section

Section staff was responsible for developing policies and procedures relevant to highway maintenance as well as sustaining the maintenance management system.

This was achieved by issuing quality standards and operating instructions, and the use of a maintenance computerized reporting system. Staff also performed field studies to evaluate current maintenance practices, prepares training material and provided instruction.

During the 1982-83 winter, 402,346 tons of salt and 723,959 tons of sand were applied on provincial highways. This represented a reduction of 17 per cent in the use of salt and 28 per cent in the use of sand from the previous winter. MTC and private snow plows covered 4,054,433 pass kilometres during the winter, a reduction of 47 per cent from the previous year.

During 1982-83, a new maintenance quality standard for pavement markings was issued and a general



Judging at MTC's annual rodeo at Downsview

review of five others was undertaken.

Operating instructions were prepared and issued for maintenance and operation of snowplow equipment as well as installation of loop detectors, improving the efficiency and productivity of patrols and crews.

Some 300 maintenance staff received winter maintenance training as part of the on-going process, ensuring that all personnel participating in snow removal operations are familiar with existing policies and procedures.

During the winter, 126 private snowplows were used in place of MTC plows and crews. This represented an increase of 46 units over the previous winter. Twenty-eight ministry and three private snowplows were each operated by one man during the past winter — to evaluate one-man units.

An evaluation of calcium-treated sand and salt was undertaken to determine the effects and benefits of this mixture in winter maintenance.

The section also reported on a number of other methods and equipment units during the year; such as sulphur asphalt in patching potholes; routing and sealing surface cracks; and repairs to box beam guiderails.

Twenty-six additional extra-wide plows were put into operation to bring the total number of units to 47. This resulted in an additional reduction of 52 staff, since wide plows were operated by one person while our regular plows required two people on two shifts.

A pilot project was undertaken to revise the sign manufacturing reporting procedures to enable local managers to compare the cost of MTC-produced signs to those obtained from private firms.

A revised reporting document was developed to reduce the time spent on paperwork by patrols and field crews. This document was field tested.

Signs and Building Permits

Building permits issued by the 18 districts under policy direction of head office totalled 2,013 with a total value of \$199,688,933.10.

The number of field advertising

permits issued was 7,569 valued at \$263,690 and 2,773 guide sign permits generating \$59,358 in revenue.

Other permits included: 1,125 encroachment permits valued at \$69,559; 1,342 entrance permits valued at \$32,450 and 1,785 location, portable and temporary sign permits valued at \$45,732.

Equipment Engineering

Some 17,000 pieces of equipment, ranging in size from 10-ton snow plow units to chain saws were operated by the ministry to enable it to provide its various services across Ontario, equipment costing approximately \$78-million.

During the year, office staff continued to discharge its functions by:

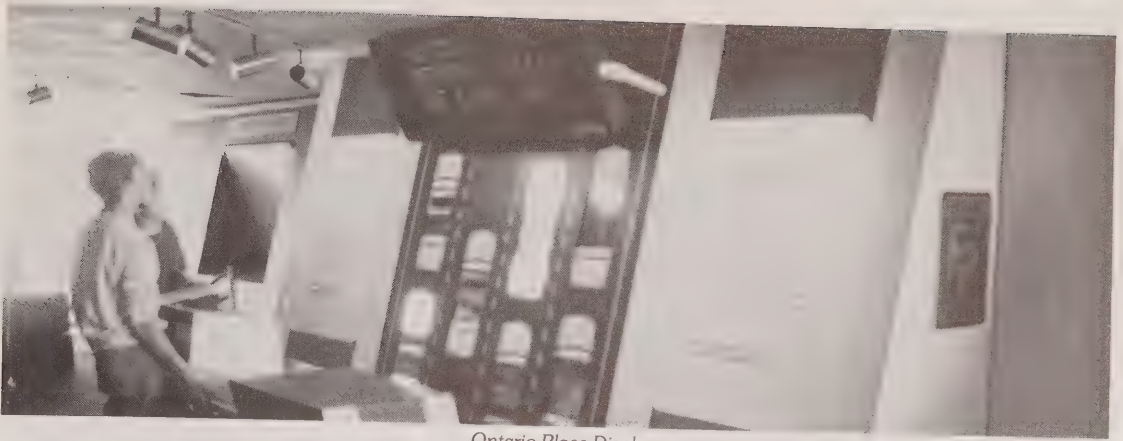
- establishing the policy under which equipment will be operated, repaired and maintained;
- providing training for equipment supervisory and technical staffs;
- specifying and initiating requests for new equipment;
- building certain specialized equipment;
- evaluating new equipment likely to be of use to MTC; and,
- providing fleet services for head office.

Highlights for the year were:

- presenting a report on the ministry's progress in privatizing a portion of its equipment repairs;
- completing a study to improve the ways the equipment inventory system is maintained;
- resolving numerous technical problems and informing all districts of solutions;

- continuing to co-ordinate MTC's province-wide safe driving rodeo held in 18 districts and head office;
- expending \$7.7 million in new equipment, of which major acquisitions were 11 six-ton trucks, 27 five-ton trucks, 104 light trucks, and 30 diesel powered sanders;
- converting three zone striping units from rear single-axle cold-paint machines to tandem rear axle hot paint machines, thereby improving productivity;
- evaluating numerous new pieces of equipment, including a grader designed by Alligrader, Ottawa, as an alternate Class "101" grader; Ford and Chevrolet mini-pickups which give significant reduction in fuel consumption compared to our standard sized units; a new weed-spraying piece of equipment, mounted on a track vehicle supplied by Universal Go-Track who have now established an Ontario operation; tungsten carbide snow plow blades from potential new suppliers, and a diesel powered sander from Commercial Vans Limited, Malton.

Personnel also found ways to economize internally. During the year, the number of permanent staff was reduced from 66 to 60.



Ontario Place Display

Traffic Management and Engineering Office

Office staff developed policies, procedures, standards and specifications, provides technological leadership and carried out development, in the areas of traffic signs and markings, signals, electronic control systems, electrical design and maintenance, freeway traffic management, traffic devices, traffic accident data and traffic analysis. They also provided program delivery in electrical design for all regions except Central Region.

In Traffic Signing, new policies and sign standards included new pavement marking standards for ramp merging and diverging areas; new signs for municipal airports; and new symbol sign designs for "No Right Turn on Red", "Yield Ahead", "Dangerous Goods Route" and "Dangerous Goods Prohibition".

A bilingual signing package was issued for MTC use which included updated and newly developed french language signs. Work was initiated on review and revision of current freeway guide signing policy.

A revision to Highway Traffic Act regulations stipulates that speed limit signs are legal with or without the km/h legend. While km/h tabs may now be removed, they will be maintained on provincial highways for a further period for advisory purposes. A review of the highway numbering system did not recommend major changes in the current system but provided a framework within which future proposed changes could be evaluated.

In traffic signals, work was initiated on guidelines for left-turn lane design and controls; traffic detection devices for traffic signals; and a signal operation manual. Revised traffic signal warrants introduced the previous year were monitored and assessed as being generally satisfactory.

Operational improvements to the ministry's standard model 170 traffic

signal controller software were implemented.

Electrical design and development staff (highway design office) and the electrical maintenance personnel (maintenance operations office) were transferred to the traffic management and engineering office in April, 1982.

These sections, along with electronic control systems, were amalgamated to form the electrical engineering section in January, 1983. During this year, 77 electrical design projects were completed for all regions, except central, with a total construction value of \$1,960,000.00.

A review of the MTC's highway illumination policy was initiated. Development was carried out on new material, programmable lighting, revisions to standard electrical drawings and specifications, along with continuing development and modifications to the Model 170 traffic signal controller. There were approximately 250 Model 170 traffic signal controllers in operation throughout the Province.

Technical support was supplied to the electrical maintenance forces through direct contact and the periodic issuance of a newsletter outlining improvement in equipment, material and installation and maintenance techniques.

The Municipal Traffic Control Systems (MTCS) project, initiated by MTC, progressed beyond the initial three-city demonstration. Mississauga awarded a contract for the installation of an MTCS system while London and Brampton were preparing to issue specifications for similar systems. In some cities, the use of cable TV coaxial lines was considered for communication between the central computer and traffic controllers.

MTCS feasibility studies were underway in Windsor and the Region of Niagara. The ministry provided both technical and financial assistance for these projects.

In traffic development and analysis, development continued on electronic control devices, included "Too Fast" signs and overheight vehicle detectors, and special signals. Extensive technical and operational support was provided for other groups in MTC in the areas of electronic devices, freeway traffic operational problems and highway design features related to traffic operation and safety.

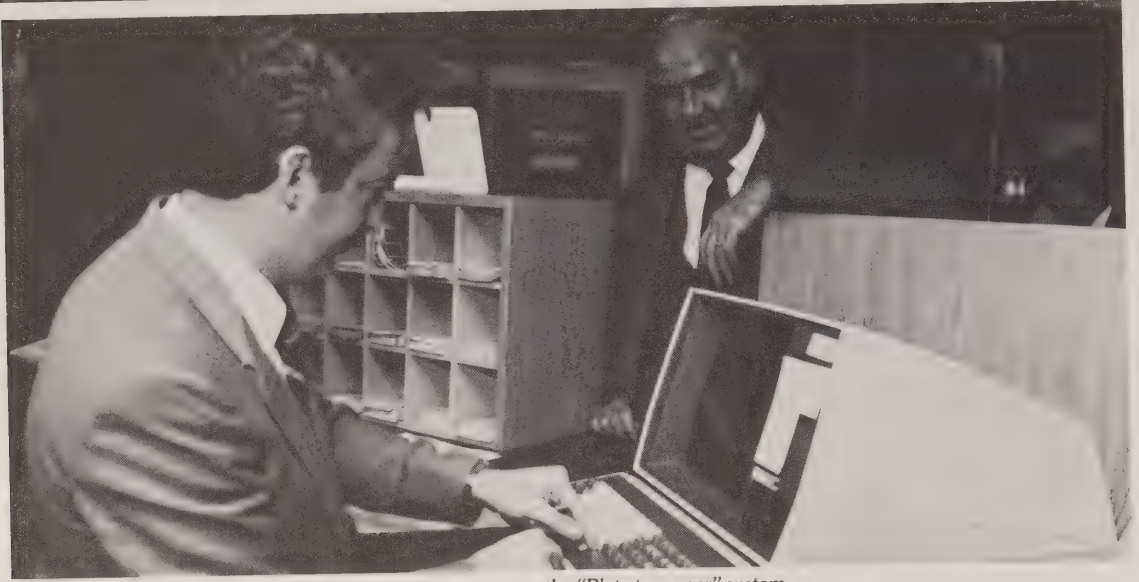
Development work on microprocessor-based permanent traffic counting stations with telemetry capabilities resulted in the establishment of test sites at the Port Severn and Dixie stations. Further evaluation continued. An evaluation of microprocessor-based roadside traffic counters was initiated.

Further improvements were made to the traffic accident information and retrieval system. Accident data was provided for a large number of traffic engineering studies and information requests.

In traffic analysis, staff administered and assisted in traffic operation studies for Cambridge, Timmins, Mississauga, Brampton, Windsor, Goderich and Niagara Region. The annual monitoring of vehicle operating speeds on provincial highways continued.

In freeway traffic management systems, work continued on the preliminary design of the Highway 401 system in the Metro Toronto area. Following completion of the feasibility design study for a system on the QEW in the vicinity of the Burlington Skyway, system implementation was approved and work began on the preparation of contract documents for the tendering of the construction of the system. A feasibility and preliminary design study was also initiated for a system on the Ottawa-Queensway. Weekday morning, peak-period operation continued on the eastbound QEW in Mississauga.

Safety and Regulation



The Minister initiates the "Plate to owner" system

This area is responsible for the licensing of vehicles and drivers, safety standards and the promotion of safety on the highways.

It also oversees the government's involvement with the inter-city bus and

truck industries, administers the licensing of for-hire vehicles under federal and provincial acts — and enforcement of these acts.

During the year, this area underwent

a major reorganization in preparation for the introduction of the new "Plate to Owner" licensing system and relocation of some drivers and vehicles staff to Kingston, Ontario.

Transportation Regulation Operations Division

The division is made up of the Licensing and Control Branch, Compliance Branch, Systems Improvement Office and Resources Co-ordination Office.

Resources Co-ordination Office

This office was established to ensure an appropriate number of staff and financial resources for management of the Transportation Regulation Operations Division and Transportation Regulation Development Branch.

Staff monitored all program and sub-program delivery areas within the purview of the ADM, Safety and Regulation, to ensure adequate service levels were maintained and resource utilization efficiency maximized. They also maintained an inventory of personnel capable of fulfilling all program needs.

Program Administration Office

Staff promoted the delivery of uniform drivers and vehicles programs to the public, provided policy directives, operation procedures, technical expertise and training courses for vehicle inspection and highway carrier field staff.

Program administrators assisted the division in development of new or amended legislation and co-ordinated implementation of new vehicles programs.

Compliance Branch

Promoting a regionalized program, branch personnel were responsible for

the highway carrier licensing, office, investigation and prosecutions, program admin, prorate and reciprocity, weights and dimensions, vehicle standards and dangerous goods transportation offices.

Programs were continually monitored to insure consistency with governing legislation, policies, and procedures, providing coherent direction of enforcement officers in the compliance of economic regulatory control legislation and the Highway Traffic Act.

In addition, staff, in conjunction with transportation regulation development, insured a program which reflected an awareness of Ontario's needs, relationships with other jurisdictions and the exchange of compliance information. Significant developments and new initiatives within the transportation industry were also reflected with an aim to respond to the factors which affected development of Ontario's transportation industry and



MTC inspector checks for load security

which influenced the mobility of goods and people.

The education, cooperation and communication with both the regions and the industry were continually under examination and development toward an effective program.

Systems Improvement Office

Staff responsibilities were expanded to include systems development and maintenance for the total safety and regulation program. Short term initiatives in the drivers systems area in support of the Kingston move of a portion of the drivers operational section were completed.

The introduction of a program-wide management reporting system proceeded as scheduled and associated work measurement efforts were started. Other initiatives underway were in the vehicles and compliance systems areas, along with major forms design and procedure manual writing activities.

Dangerous Goods Transportation Office

Staff provided co-ordination and acted as focal point for the Ontario strategy on the transportation of dangerous goods. It responded to national initiatives in the area of public safety and developments on a nationally uniform code for the transportation of dangerous goods.

They also participated in the development of the code under the auspices of the Canadian Council of Motor Transport Administrators (CCMTA).

And personnel also assisted in the further development of Ontario legislation to complement the Transportation of Dangerous Goods Act, Statutes of Canada, Chapter 36. The Ontario act received Royal Assent in December of 1981, providing the basis for adoption of the nationally uniform code for on-highway transportation in the province. Current work on the act will facilitate compliance enforcement and resolve conflicting requirements in other Ontario legislation.

Staff also continued work and negotiations on a Canada-Ontario agreement to delineate jurisdiction and responsibilities for the administration of the dangerous goods regulatory regime; participated in seminars for shippers, carriers, and users of dangerous goods, sponsored by industry associations; and, otherwise ensured wide dissemination and awareness on the status and scope of the Ontario program to further public safety.

To ensure that Ontario municipalities are aware and gain an understanding of the federal and Ontario legislation, regulations and associated support services provided by the office, staff continued to provide information and presentations to individual municipalities and municipal interest groups.

Various information posters and other materials were produced and distributed to raise the awareness and ability of the ministry's on-highway personnel to recognize and cope with potential hazards encountered in their day-to-day work or in case of an

accident involving dangerous goods' cargos.

Technical and program information was provided to industry, the media, general public and on-highway enforcement personnel.

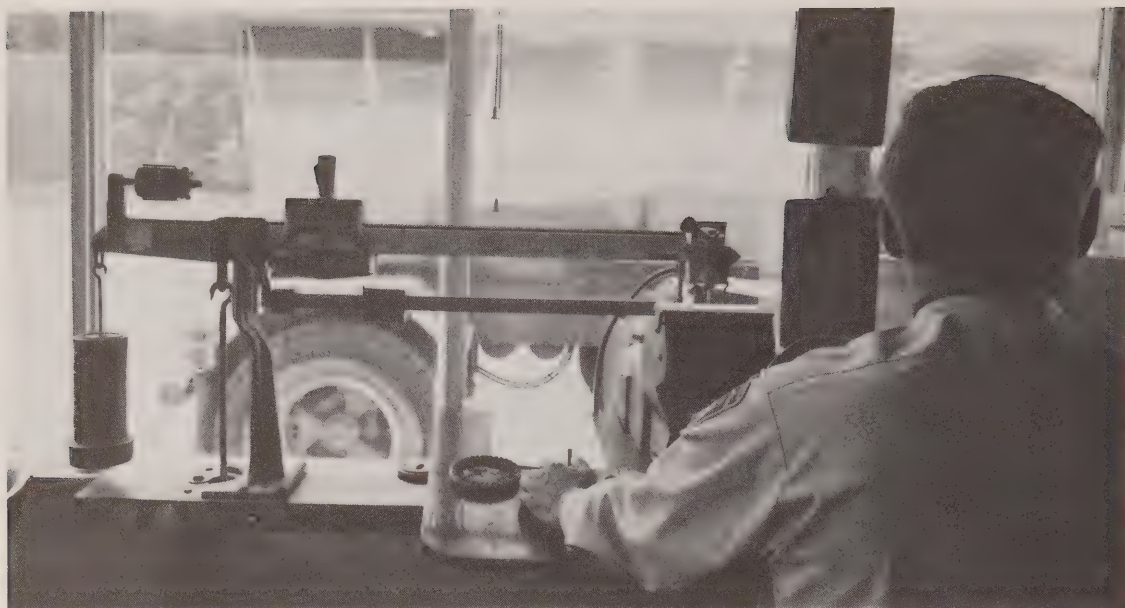
Individual Ontario program components, such as the Ontario Dangerous Goods Transportation Act, the Federal-Provincial Agreement, elements of the awareness program and details of the planned staff training program for Ontario compliance enforcement staff have been distributed to the other provinces and jurisdictions involved in the national program and are accepted as models by these agencies.

Investigations and Prosecutions Office

Investigations and prosecutions staff were responsible for insuring compliance with the Public Commercial Vehicles Act and the Public Vehicles Act by the highway carrier industry.

Over the past five years, a comprehensive off-highway enforcement system was developed for the conduct of in-depth investigations, requiring examination of all books, records and documents of licenced carriers. In the past year, there was increased activity in examination of licenced carriers' books, to establish if their operations were in compliance with the terms and conditions of their operating licences.

In the 1981-1983 fiscal year, 4,677 cases were placed before the courts for contravention of the Public Commercial Vehicles Act, the Public Vehicles Act, and the Motor Vehicle



An MTC inspection station

Transport Act (Canada). Approximately one half involved purported leasing arrangements.

A comprehensive training program, developed by staff taught all aspects of knowledge required by an investigator was concluded in the fall of '82 because sections had been established in eastern, central and southwest regions.

Another was retained at head office to conduct investigations in northern and northwest regions, as well as those generated by head office.

Interprovincial liaison and cooperation was assisted through the ongoing Interprovincial Conference on Communications and Investigations, held in Quebec City in June, 1982. Also, the publication of an interprovincial compliance reference guide greatly enhanced the working relationship between Canadian jurisdictions.

In addition, reciprocal arrangements to serve summonses, subpoenas, notice of hearings and conduct of joint investigations were created. Under this arrangement, some 1,344 summonses were served by other jurisdictions for and on behalf of Ontario.

Personnel also provided policy dissemination and advice to field operations regarding investigations activities while reviewing its compliance procedures, methods of information management, strategic and tactical planning.

Highway Carrier Licensing Office

Staff was responsible for monitoring of Ontario Highway Transport Board certificates for compliance with the Public Commercial Vehicles and Public

Vehicles Acts and the Motor Vehicle Transport Act (Canada); collection of revenue and the issuance of operating and vehicle licences associated with the board issued certificates of public necessity and convenience.

During the past fiscal year, 4351 certificates were processed, 2965 new and amended public commercial vehicle and public vehicle operating licences and 73,513 vehicle licences and plates issued.

Reciprocity and Prorate Office

Staff administered Ontario's participation in the Canadian Agreement on Vehicle Registration (CAVR), Commercial motor vehicles and buses registered under CAVR pay registration fees in proportion to the percentage of operation in each member jurisdiction. In 1982-83, Quebec, Nova Scotia and Newfoundland implemented the agreement, leaving Prince Edward Island as the only non-participating province.

The CAVR system registered 19,000 vehicles and collected \$11 million in registration and administrative fees.

Personnel also administered existing, and assisted in negotiated new reciprocal agreements for commercial vehicle registration between Ontario and other North American jurisdictions. During the year, agreements were signed with South Dakota, Illinois, Maryland and Prince Edward Island. This brought the total number of agreements to 32.

In addition, they responded to a number of proposed new and amended federal standards effecting

the manufacture of new motor vehicles.

Personnel also assisted police in their investigation of a number of accidents involving heavy commercial vehicles, served as expert witness at coroner's inquests and court trials and responded to coroners' jury recommendations.

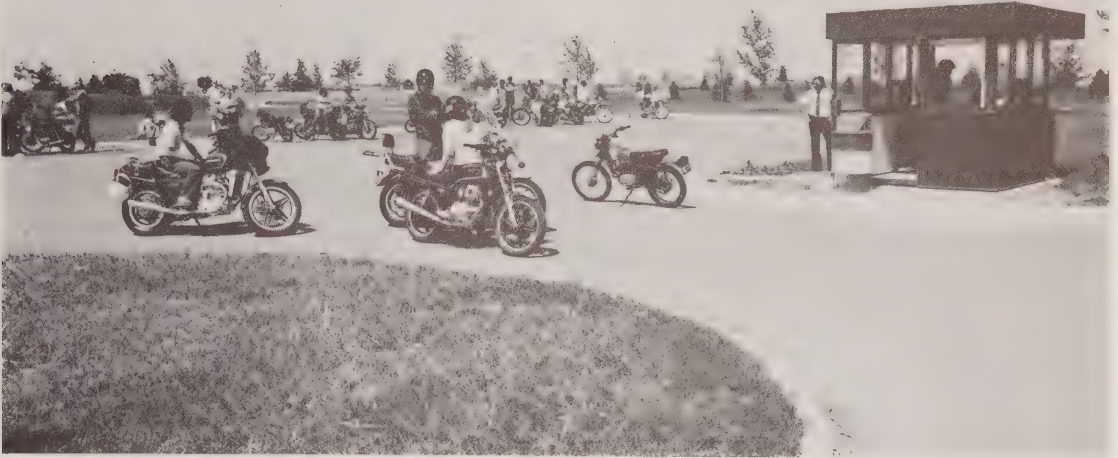
Weights and Dimensions

This office was established in mid-year to assist in the preservation of the highway system while meeting industries needs for efficient transportation.

- to review and issue permits which exceed routine guidelines and/or as inter-regional
- to review existing policies and recommend changes
- to interpret and communicate ministry technical requirements for vehicle weight and dimension controls to O/O permit issuing staff, vehicle and trailer manufacturers, and the heavy haulers of Ontario and out of province
- to monitor and audit both technical and fiscal aspects of O/O permits issued across Ontario
- to assist in development of fixed, semi portable, and mobile weighing equipment systems and truck inspection stations, including weigh in motion and vehicle sorting devices

During the past fiscal year head office staff in Downsview issued 3,756 annual, project and single trip permits. And 200 applications for permits in excess of routine guidelines were received and reviewed for permit issuance.

Transportation Regulation Development Branch



Motorcycle testing at the John Rhodes Centre

Program Evaluation Office

Office staff played an active role in evaluating and refining its structure and objectives, defining the various program functions and needs of reporting results.

During the year, the revised MBR guidelines were implemented and integrated in the program planning process for 1983-84. Refinement of the many indicators within the results spectrum continued.

Special projects included an assessment of off-highway compliance investigations and a study of program revenue collection.

Continuing projects included a study on the causes of fatal accidents and a measure of public satisfaction through monitoring the minister's mail.

Safety Co-ordination and Development Office

Personnel initiated and coordinated development and implementation of highway safety policies and programs and provides consulting and support services to the highway safety coordinator.

In fulfilling its mandate, they compiled and published annual provincial accident data, monitored accident trends including the 1982 reduction in fatal accidents; administered the secondary school driver education program; coordinated the safety research program for the ministry, including the development of a new driver education text and

curriculum and an evaluation of the probationary driver licence system; and assisted in coordinating safety information activities including an update of the driver's handbook.

In an attempt to assess and develop highway safety countermeasures, staff maintained liaison with safety researchers, provincial and municipal police forces, school boards, driving school associations, private industry and other provincial and federal agencies. In addition, they served in an advisory capacity to the Ontario Commission on Truck Safety, the Motor Vehicle Safety Association, the Hamilton-Wentworth Council on Road Trauma, the Ontario Advisory Council on the Physically Handicapped Transportation Committee.

Staff also served on safety-related committees for the Ontario Safety League, the Canada Safety Council and Ontario Traffic Conference, and provided input to national safety strategies through participation on the traffic safety programs committee of the CCMTA.

Project Development Office

Staff undertook investigation and development of policies, legislation and regulations affecting drivers, vehicles and truck and bus industries. Some 30 projects were completed; these included new regulations for the vehicle registration system, child restraint legislation, amendments to the Motorized Snow Vehicles Act, and various cost-cutting and regulatory reform initiatives.

In addition, they provided chairmanship and support services to

the legislative review committee in the review of draft policy, legislation and regulation pertaining to this program. Consulting and support services were provided also for various internal and external committees and task groups such as the Commission on Truck Safety, the Intercorporate Trucking Committee and the ad-hoc committee on log hauling.

Vehicle Standards Office

Staff provided consulting service to MTC and other ministries, police, lawyers and the public in matters related to vehicle legislation, standards and performance. They also recommended and assisted in the development of legislation and regulations.

They also took a leading role in the drafting of vehicle standards such as chairing the Canadian Standards Association committee responsible for the development of a national standard for the construction and equipping of vehicles used for the public transportation of physically handicapped persons.

Bus Transportation Office

Personnel was responsible for the development of programs, policies and legislation concerning intercity bus transportation in Ontario.

Activities included negotiation of a reciprocal agreement for bus safety inspections with the State of New York; development and implementation of the mechanism for the approval of bus



tariffs under the administered prices program; responding to discontinuances of intercity bus and rail passenger services; and, most importantly, initiation of an Ontario bus committee which addressed two important issues affecting the intercity transportation of passengers — those being mobility in rural areas and major corridors.

They were also members of the newly formed CCMTA working group on buses, carrying on the work of the former CCMTA task force on "Transportation of Disabled Persons in Intercity Buses", as well as raising and studying other broad national issues surrounding the provision and regulation of intercity bus transportation in Canada.

PCV Act Review Committee

In May, 1981 the minister appointed a committee of 24 representatives of manufacturing, shippers, carriers, labour and government to conduct a fundamental review of the Public Commercial Vehicles Act. He asked the committee to examine the basic structure of the legislation and to recommend new principles for economic regulation of trucking in Ontario.

Members met approximately once per month over the past year and a half. In November, 1982 they published a discussion paper outlining the needs for reform, plus new directions for the legislation. Four thousand copies were distributed throughout Ontario and other provinces.

The response to the paper indicated support for reform from all related sectors, especially for reducing legislation complexity and

strengthening enforceability. At the same time, some fears of change and market disruptions were expressed.

At the close of the fiscal year, the committee was engaged in devising appropriate legislative mechanisms which would produce the desired reforms while preserving an active and viable market. Final recommendations to the minister were due at the end of May 1983.

Truck Transportation Office

Staff expanded its sphere of operations in 1982, providing a government focal point for ensuring responsive and efficient highway transportation of goods within Ontario and between other jurisdictions.

To accomplish this, liaison was maintained with individuals, the trucking industry, officials of other Ontario ministries, other jurisdictions, federal government, Canadian Conference of Motor Transport Administrators, and American Association of Motor Vehicle Administrators.

Proposals were developed for reforms and refinements to the Public Commercial Vehicles Act and Highway Traffic Act, and staff assistance was provided to the Public Commercial Vehicles Act review committee. Development commenced on a program to monitor the impact of intercorporate trucking, and assistance was provided to the reciprocity and dangerous goods programs.

During the year, transportation pricing information was provided for other ministry modal offices and small business enterprises were assisted with transportation problems.

Ontario Committee on Truck Safety

During the year, the Committee on Truck Safety, chaired by Dr. Robert Uffen of Queen's University, wrapped up a series of public meetings held in centres across the province.

The committee also studied more than 80 briefs, in addition to holding private interviews and considering the comments of interested groups from industry and the general public.

Its mandate was sufficiently broad to allow the committee to investigate all non-economic matters pertaining to truck safety, including: driver standards; vehicle standards; rules of the road; enforcement; sanctions; public and industry perceptions.

As part of the investigation, Dr. Uffen arranged for a demonstration of over-length trucks on Highway 401 in June, 1982 so he could personally observe their operation in traffic.

Drinking and Driving Task Force

At the request of Premier William G. Davis, the Ministry of the Attorney General set up an interministerial task force to investigate drinking and driving.

MTC staff appointed to the task force worked closely with other members to maintain liaison with citizens groups and encourage grass root community involvement.

Task force members also investigated ways to change social attitudes towards drinking and driving.

Licensing and Control Branch

Kingston Relocation and Reorganization Project

As part of this project, the interim services-production organization came into existence on April 19, 1982 when half of the drivers and vehicles production staff moved from Downsview to Queen's Park. The other units moved to share the same floor in the Ferguson Block with the first group. At the same time, 67 service people from Queen's Park were shifted to Downsview.

The purpose of the interim move, separating the service and production sections of drivers and vehicles, was a trial to see how the system would work after the Kingston move.

Encouraged by the results, the licensing ops office was scheduled to move to 51 Queen St., Kingston, and commence operations on April 25th, 1983.

Phase II of the program was slated to relocate the field support, financial and stock control and support services to 118 Princess St., Kingston in August 1983.

Operational Policy Office

This office was formed in January, 1983, as a result of the reorganization of the licensing and control branch. It had a complement of 20.

Staff was responsible for development of new operational policies and procedures, the evaluation and revision of current operational policies and procedures, the monitoring of field and head office operations to assure consistency of the administration of operational policies and procedures, and staff training to meet changes in policy and procedures.

Personnel covered three major subject areas, each having a co-ordinator and support staff, including: vehicle licensing and control; driver examination and certification; and, driver improvement.

Driver Improvement Office

This office was responsible for ensuring adherence to standards established for the licensing of drivers and monitoring drivers' post-licensing

activities. This was accomplished through the activities of two sections: driver control and medical review.

Driver control entailed maintenance and administration of the demerit point and probationary driver systems, and administration of licence suspensions and reinstatements related to driver behaviour and attitude.

Medical review staff were responsible for ensuring drivers required to file periodic medical reports as a requirement to maintain their class under the classified driver licence system, and, drivers identified as having medical conditions making it unsafe for them to operate vehicles, were monitored. They were also responsible for the administration of medical related licence suspensions and reinstatements.

Both sections contributed to the maintenance of an accurate cumulative operating record of each Ontario driver.

1982

Licensed Drivers	5,247,198
Male	2,989,916
Female	2,257,282
New Drivers	222,143

Demerit Point System	
Warning at 2 to 8 point level	129,104
Interview at 9 to 14 point level	37,016
Suspensions at 15 or more point level	6,176
—First 15 point accumulation	5,498
—Subsequent 15 point accumulation	678
Suspensions at 6 or more point level (Probationary Drivers)	6,843
Suspensions for physical or medical reasons	3,046
Suspensions for drinking and driving	44,111

Licensing Administration Office

This office was responsible for answering enquiries from the public, from government agencies and other groups regarding the policies, regulations and legislation governing driver and vehicle licensing in Ontario. In addition, it provided a search service of driver and vehicle records for the public and other agencies.

Over the past year, staff members

answered 66,900 items of correspondence, 477,800 telephone calls, made 175 court appearances and assisted 58,800 clients at the counter. They also processed a total of 2,703,500 driver and vehicle searches, 66,800 requests for motor vehicle accident reports, and verified information on 776,400 summonses for the Metro Toronto summons bureau.

Staff also provided administrative support to other offices of the branch in Toronto in record maintenance, typing, revenue control, mail distribution and computer output quality control.

Field Support Office

This office, a component of the production organization to be located in Kingston, was responsible for providing an enquiry service to the 309 appointed issuing agents, 11 MTC offices and 71 driver examination centres.

It was also responsible for monitoring the performance of the field offices, the quality of documentation and the accuracy of the driver and vehicle files.

Financial and Stock Management Office

This office, also a component of the production organization to be located in Kingston was responsible for collection and consolidation of all revenue related to driver and vehicle production activities and; the overall control of the current long range requirements for driver and vehicle production related stock and material.

Support Services Office

Office staff is one of four organizational components relocated to Kingston. It consists of the former — data entry section, driver and vehicle microfilm group, typing and mail distribution functions.

As such, staff were responsible for production of 9,800,000 microfilm records and 5,926,500 computer program readable card and/or magnetic tape records.

In addition, more than 56,000 issuer report submissions were received and 1,000,000 sets of plates scrapped, including returned stock and plates from junked cars.

Finance and Administration



Culvert construction on a King's highway

Transportation Capital Branch

Personnel were responsible for program planning, development, priority setting, expenditure control, monitoring and program evaluation for both the construction and maintenance elements of the provincial highway program.

The Branch has three functional units: highway program planning office, highway program administration office and capital investments office.

Highway Program Administration Office

The administration of this program, including the operational plan, the construction plan, program budget control and project control were the responsibility of this office.

In co-operation with the Highway Engineering Division and five regional offices, a first-generation provincial highways operational plan was developed. It identified administrative, design, construction and maintenance work to be undertaken over the next few years.

From the operational plan, a multi-year construction plan was developed to provide management with the information necessary to direct and monitor capital construction expenditures within a constrained financial environment. A concise look at the current year of this construction plan was provided to the public and Legislature through the annual Construction Projects Report.

The budget was co-ordinated and in-year expenditures monitored and controlled. Recommendations for adjustments due to variations in work plans, constraints and new initiatives were handled. Advance notices of contract tenders were prepared and issued to members of the Legislature and press, providing the best information available on provincial highway construction.

Senior management was provided with regular financial status reports. Also, special statements were provided on the Board of Industrial Leadership and Development, transportation investments, job creation activities and The Ministry of Northern Affairs, regional priority budget and special projects.

Sophisticated computer systems were used in the process of individual project control. Critical path method construction schedules were provided as information to bidders on most major projects and were also used to monitor progress on projects underway. The construction resources evaluation package was used extensively to determine construction staffing requirements. The expenditure forecast system provided a calendarized expenditure flow on approximately 1300 projects in the construction plan. In addition, project values and pre-engineering status were monitored using computer systems.

Highway Program Planning Office

Office staff, with supporting sections,

planned and coordinated future development of the provincial highway program. Functions included annual long-range planning; development of program / sub-program / activity priorities; development of system policy; coordination and synthesis of highway planning information; and evaluation of program performance and effectiveness.

Through its manager, the office also provided staff support to the chairman of the Provincial Highways Program Committee.

Long-range planning (LRP) involved analysis of issues and demands to match products and services to future requirements. Specifically the LRP involved a calculated speculation of future program issues, financial outlooks and system needs to determine the program future emphasis.

LRP also involved analysis of financial outlooks, public perceptions, major priorities, personnel implications, automation and technology, strategic directions, privatization and other external factors to arrive at program alternatives in capital, maintenance, design and program administration. Specific five-year targets were developed in various aspects of the program so that program products and services properly matched future requirements and emphasis.

Staff developed 10 major issues which included such areas as automation, technology, privatization, human resource management, program evaluation; and strategies were developed for each issue to provide corporate direction to operational units.



Program evaluation assessed the effectiveness of the program in terms of measurable public benefits and provided information on the relative significance of various sub-programs as well as monitoring results through MBR reporting.

Program priority planning carried out analysis and development of system rehabilitation and system expansion priorities to obtain benefits for the overall provincial highway program. Priority analysis determined funding to be allocated to each sub-program and activity and identified priority on system improvements and changes.

System analysis developed policies ensuring provision of equitable and adequate services on the highway system. The extent and location of system improvements, impacts of level of service changes and variations in quality and quantity standards were analysed to guide management decisions.

Information systems function collected, processed and synthesized information to support the overall planning and management of the program. In addition to providing significant technical data and other information for internal use, including background for the "Highway Distance Table" and "Traffic Volumes King's Highway and Secondary Highways".

Capital Investments Office

Restraints required that capital investments be managed carefully. They prevented service "needs" being met in all programs, requiring difficult choices on funding and timing of capital initiatives, to aid in these decisions and tie them more closely to the MTC strategic planning guidelines, more comparable information and a coordinated approach toward capital investments and trade-off opportunities were needed.

This office provided consolidated capital planning and management information and recommendations on proposed and active transportation capital investments. Established in January, 1983 as part of the strategic

organizational plan, capital management was emphasized.

Staff objective was to achieve the "total transportation capital investment", facilitating effective use of available capital funds within four transportation programs: provincial highways; provincial transit; municipal transit; and provincial transportation/air.

Procedures were established to provide:

- a common framework for comparable data from the various programs on needs, impacts and technical priorities for capital initiatives;
- analytical evaluations of trade-offs and priorities for capital investments proposals;
- a stronger base of information for analysis of budgets to aid in the

program's capital allocations and any in-year adjustments; and,

- ongoing monitoring and status reporting on transportation capital undertakings (four programs) for the MTC executives and program managers.

This capital management effort provided the ministry with a mechanism for setting technical priorities and subsequently, determining trade-off opportunities for capital investments in response to ministry and program objectives.

A general framework of operating procedures was endorsed for integration with current practices. This approach will be given practical testing in the 1983-84 fiscal year, and it is anticipated these new procedures will be fully operational for the 1984-85 fiscal year.

Computer Systems Branch

Branch staff primarily provided system development, systems maintenance and production services on a cost-recoverable basis to client organizations within the ministry. They also provided operational support for MTC's distributed data processing systems and peripheral equipment connected to the mainframe computers, as well as technical consulting advice on potential productivity improvements in business processes.

Systems development and maintenance services were provided through four branch offices: transportation systems, management information systems, drivers systems and vehicle systems. Production services were provided by the regional liaison and production services office.

Systems planning support staff provided specialized technical and planning support services to the branch as well as client organizations.

During the past fiscal year, an internal study of the computer services was conducted by the Management Improvement Branch. As a result, a number of activities were initiated to improve the efficiency and effectiveness of these services. As well, the branch mandate was expanded to include the provision of planning

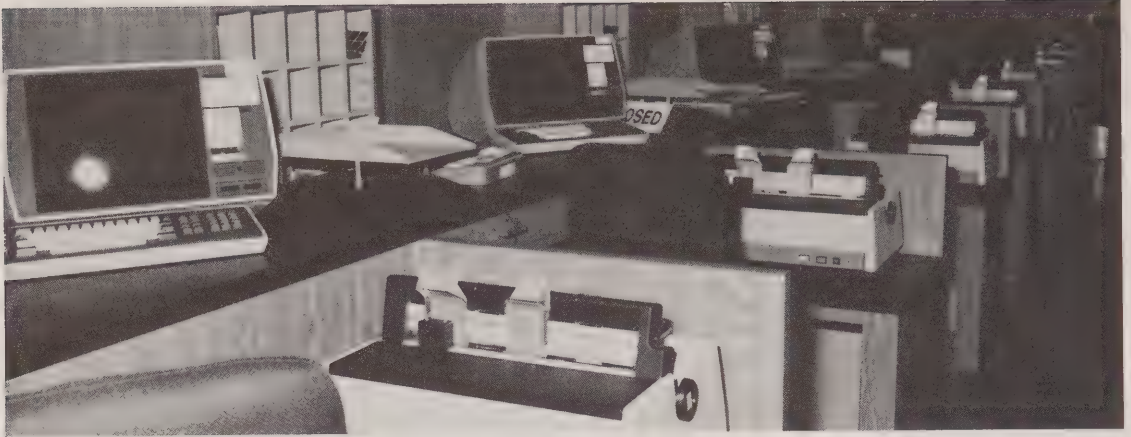
support services to MTC's strategic and long range planning processes.

Each development office was organized to provide services to clients on a program basis, where before, more than one branch office sometimes provided services to organizations within the same program.

Branch personnel monitored total ministry expenditures on automated data processing activities and reported such information to ministry's management as well as central agencies. In 1982/83 the total ADP budget for MTC was approximately \$17 million.

This past year a micro-computer resource centre was established to act as a focal point for micro-computer support in the ministry. It provided potential users with a facility for obtaining "hands-on" experience with several different micro-computers and variety of application packages. In operation for only a few months, this centre has already assisted a number of users in preparing feasibility studies and in selecting and acquiring micro-computer equipment and software.

Two new functions were planned for 1983/84: corporate planning support relating to the introduction of computer technology in the ministry; and specialized end-user software support.



New VRS computer equipment at Queen's Park

Driver and Vehicle Systems Office

This office provided systems development support to the safety and regulation program. Driver registration support was concerned mainly with the administration of the Ontario Highway Traffic Act (HTA) for Ontario drivers.

Staff in this area were also involved in a major review of the system to streamline the business processes and to respond to new initiatives. Significant cost reductions were achieved in such areas as postal rates, printing charges, microfilming and keypunching operations.

Major organizational changes in the client community (move of some functions to Kingston) required innovative changes to system input processes and data transmission concepts. External influences such as the freedom of information legislation were also incorporated into the review of the system.

Vehicles systems underwent drastic change over the past few years to become Ontario's largest, on-line information system. Staff in this area worked on the development team that successfully implemented it on December 1, 1982.

The main vehicle data bases, capable of storing more than 10 billion characters of information, were centralized at the Downsview computing centre. Minicomputers, accessing these data bases via telecommunication channels, were installed at all 350 vehicle license issuing offices and MTC offices throughout Ontario. More than 1,300 video display terminals and printers are included in the network.

Major innovations in this new system included: Plate-to-Owner concept; staggered renewals; flat fee; and denial of registration for owners who had unpaid parking tickets or who issued nsf cheques to MTC.

With a computer terminal in each office, transactions were processed much more quickly and up-to-date information recorded, stored and made available to members of the public, police and courts much more efficiently.

Transportation Systems Office

Office staff provided software application development, maintenance and productivity support services to three MTC programs: provincial highways, provincial transportation and municipal transportation.

About 50 operational systems were maintained in support of structural design, hydrology, road design, transportation planning, research and traffic engineering activities — systems which supplemented the production process in every facet of highway design and transportation planning.

Due to their universal application, several engineering computer programs were requested and given to other government agencies, municipalities, universities and consultants for local computer installations. The ministry's simplified transportation planning package was in use in most Canadian provinces.

Major projects completed included:

- The Share-a-Ride System was implemented to facilitate car-pooling;
- The road design system was made more productive by providing interactive operation of the automatic plotters in regional offices;
- Highway interchange design capability was enhanced by acquiring an interchange modelling system (MOSS) from Great Britain; and,
- Highway bridge information on clearances and load capacities was made accessible to the public and trucking industry through on-line computer terminals.

Management Information Systems Office

Personnel were primarily responsible for providing system development and maintenance services to the communications program and organizations reporting to the ADM Finance and Administration.

In addition, MIS Office staff were responsible for the development and support of financial, administrative, decision support type systems in all ministry programs. Some of the major systems are the operations management system (OMS), ministry financial systems, performance budgeting, human resources inventory system, and the provincial highways inventory system.

Development of the OMS, which captures and reports on MTC accounting and operational information, concentrated this year on interfaces with other systems. New interfaces with the revenue control system and the cheque reconciliation system were added while interfaces with the daily expenditure system and the maintenance management system were extended and enhanced. As well, access to OMS data via a fourth generation language was introduced.

Major accomplishments in the financial systems included the enhancement of the unclassified payroll, the cash disbursement and commitment ledger systems which can now be monitored on-line at the five regional offices.

The performance budgeting system was enhanced by the addition of reports that address to a greater degree the variability of the needs expressed by management in different parts of the ministry for operational information.

The ministry's human resource inventory system was enhanced to produce quantitative reports that assist management in manpower planning.

Supply and Services Branch

This branch was responsible for the provision of a wide range of administrative services as described in the following office and section descriptions. It was also responsible for development of MTC policies and procedures covering each of these services and for the monitoring of their effectiveness. Others are also provided to the Ontario Highway Transport Board, Ontario Telephone Service Commission and Ministry of Northern Affairs (MNA).

Systems Planning Support Office

Staff provided technical support to not only the systems development offices but client offices throughout the ministry. Some included:

- Short and long-range system planning;
- Development and introduction of improved methods and techniques for systems development;
- Development of policies, procedures and standards;
- Systems quality assurance and performance measurement;
- Evaluation and introduction of productivity improvement tools for systems development;
- Technical consulting advice/assistance;
- Operational support for distributed data processing networks; and
- Evaluation of hardware and software alternatives and assistance with acquisitions processes.

Regional Liaison and Production Services Office

This office was responsible for provision of the following services to MTC users as well as municipalities and engineering consultants working on Ministry projects:

Central data entry, technical support to batch systems and plotter services for business and engineering applications, in support of operational MTC computer systems; security and backup services for information and programs, acquisition and inventory control of peripheral computer terminal equipment such as terminals, printers, system documentation library and liaison with head office and the five regional offices in the area of operational system needs.

Information Management Office

Staff were responsible for providing assistance to MTC and MNA in the efficient and cost-effective management of recorded information.

Information analysts provided extensive services relating to the management of MTC information, including the development of indexing and classification systems, identification and scheduling of Ministry records, and the evaluation and selection of office equipment.

Over 6,000 cubic feet or 13,500,000 records were disposed of in accordance with approved retention schedules, resulting in a cost benefit of \$154,000 in reclaimed office space and equipment.

Similarly, over 143,000 records were transferred to the Ontario Government Archives, ensuring the permanent preservation of vital information. The microfilm unit filmed in excess of 1,100,000 hardcopy records, or approximately eight tons of paper.

Forms management staff continued their program of progressive improvement in the design, processing and control of MTC and MNA forms. To increase management control over the inventory, they developed and published a computerized catalogue of the 2,600 forms currently in use. The catalogue will be revised during the coming year to include more detailed management information.

Library and information centre staff provided library and reference resources for MTC and the transportation community, acquiring all publications and subscriptions to periodicals and newspapers. They provided reference services, computer searches, inter library loans and issued two regular publications, *Library News* and *Journal Contents*, to ensure all clients were informed of current acquisitions and holdings.

References and information requests exceeded 20,000. The centre was also designated as the "public reading room" to comply with the prescribed open government policy and in anticipation of the proposed access to information and privacy protection legislation.

Admin support personnel provided typesetting, arranged the printing, distributed and/or sold the 183 MTC manuals and amendments which are centrally controlled. In total, over 16,500 copies were distributed to

ministry offices, other government institutions and the public.

They were also responsible for the availability, printing, inventory, sale and distribution of all MTC and topographical maps. In excess of 200,000 were distributed or sold.

In addition, they administered the printing, update and distribution of both ministry directives and engineering indices of technical data on all provincial highways. Computer-based management control systems for directives and manuals were developed and implemented.

The Office of the Future pilot project, established in 1980, became an approved organizational component during 1982. Staff provided administrative and clerical support services to the Internal Audit Branch, special services office, contract review section, claims and analysts group and payment verification office.

In addition, word-processing services involving lengthy reports were provided to Management Improvement Branch and Transportation Programs Division.

During the year, the office was used as a test-site for introduction of advanced processing technologies, the application of new ergonomic considerations and the evaluation of the personnel issues attendant to the integrated workplace.

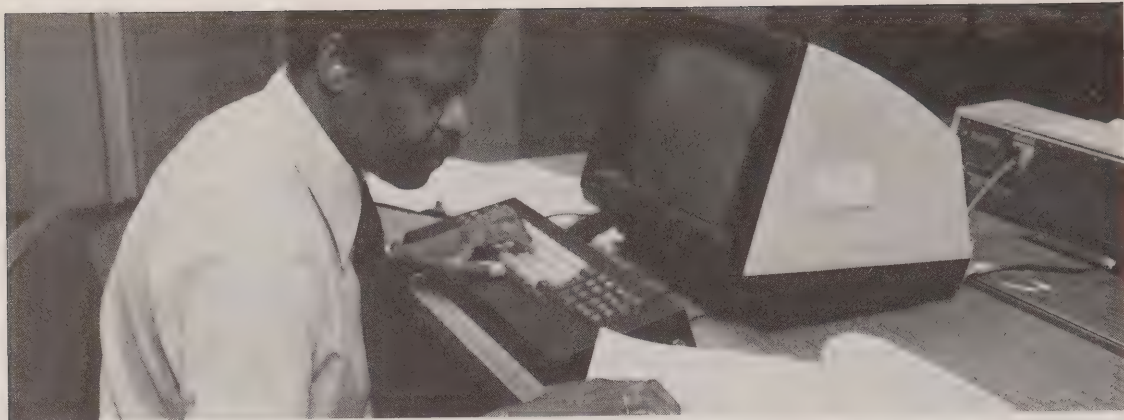
Service levels, productivity, processing benefits, and degree of management support and user acceptance were monitored and will become the principal focus of the office during the coming year.

Purchasing and Supply Office

Materials and operating supplies staff were responsible for the purchase of all construction and maintenance materials and general ministry supplies totalling about \$98 million.

Vehicles and equipment personnel acted in the purchase of vehicles and equipment through standardization of specifications and consolidated purchasing for all Ontario government ministries and agencies, totalling approximately \$25 million.

Stores section staff allowed MTC to take advantage of savings by bulk purchasing, also facilitating MTC's operational function by having materials available for later use. They also reconditioned and stored Bailey bridge components for emergency use. Currently, there are 174 such installations in the province.



Using a VDT

Supply planning and disposal section staff facilitated the disposal of all used ministry equipment, surplus material and all Ontario government motor vehicles, via public auction or tender. Sales totalled \$3.6 million. They also initiated a new inventory management program to reduce province-wide inventories by \$550,000. Reviews of field operations are conducted as appropriate.

The movable asset control system consisted of approximately 43,000 items valued at approximately \$100 million and was coordinated by this section.

Tenders Section

Section staff maintained strict security over all head office tenders. Approximately 6,547 were received and processed for 902 contracts while some 2,319 contractors/suppliers attended public-tender openings.

In advertising, some 354 insertions were placed in the news media regarding tender calls and public notices. Direct cash sales of contract documents, various construction-related manuals and MTC's Contract Bulletin produced a revenue of \$115,830.

Graphic Services Office

Staff were responsible for the provision of a wide variety of commercial art, reprographic, offset printing and duplicating services in support of all ministry programs.

The graphic art and display section completed 212 requests for commercial art designs (over 3,100 singular items) and participated with a display at exhibitions located in Thunder Bay, Ottawa, London, Peterborough, Kitchener, Lindsay, Simcoe and Kingston.

In addition, displays were provided for various functions at Queen's Park and the Royal York Hotel. This section

and all related activity was transferred to the Public and Safety Information Branch Nov. 1, 1982.

More than 20,300 requests for reprographic services were processed for the provision of high-quality, black-and-white and colour reproductions using photographic, diazo, screen processing and rapid turn-around photocopy methods. Approximately 15.5 million impressions were produced in the offset reproduction facility for which a charge-back system was initiated with recoveries in excess of \$830,000.

Administration of the MTC and MNA identification card-issuing program is also their responsibility.

Special Services Office

Staff were responsible for co-ordinating a capital building program involving a major building, including office furnishings and equipment. They were also responsible for the provision of accommodation, telecommunications, office automation development services, postal services, instrument repair within MTC and administration of service centres on controlled access highways.

Construction of the John Rhodes Driver Examination Centre was completed while numerous projects involving new equipment installations were undertaken at head office, regional, and district offices.

Instrument Repair and Test Shop

Personnel had the only facilities in the ministry for repairing, calibrating, and environmentally testing highly specialized and very precise engineering instruments such as theodolites reading directly to one second of arc, first and second-order levels, other miscellaneous survey equipment, traffic counting recorders, solid state timers, detectors, transceivers, decoders, 170 micro-

processors, monitors, switch packs, isolators, relays, and other miscellaneous electronic equipment pertaining to traffic signals control.

They were also responsible for acceptance testing all the 170 type microprocessor equipment for controlling traffic signals in this ministry, including software and hardware. These services were provided to all regions, districts, and head office. A charge back system was also implemented with recoveries of approximately \$180,000.00.

Service Centres

Twenty-three service centres were in operation during the past year, 19 on the MacDonald-Cartier Freeway (401) and four on Highway 400. Revenue derived from the locations exceeded \$4,900,000. Facilities and services, available at the centres on a 24-hour basis, included restaurants, washrooms, public telephones, first aid, motor vehicle fuels and lubricants, emergency towing, repair services and 21 picnic rest areas.

Essential services such as parking, washrooms, restaurants, telephones and water fountains were available to the physically disabled at all service centres.

Propane dispensing facilities were installed at centres. It was expected that a number of additional facilities will be constructed during the spring and summer of 1983.

Outdoor information facilities were maintained at two centres, enabling the motoring public to access basic travel, lodging, and local points of interest information on a 365-day/24 hour basis. Full service information booths were operated at 18 centres from mid-June up to and including the Labor Day weekend by the Ontario Ministry of Tourism and Recreation.

An inspection program provided coverage on all holiday weekends and most regular weekends. Co-operation between site management and staff resulted in a low level of customer complaints during the 1982-83 fiscal year.



At MTC's Downsview auction sale

Special Services Operations

Personnel were responsible for incoming and outgoing mail handling, courier mail service to all regional and district offices and Downsview teletype centre activities. The handling of a heavy volume of licence plates, permits, drivers' licences and returned licence plates was also a responsibility. Volumes of mail reached were: outgoing mail 1,817,157; incoming mail 3,612,841; and, teletype messages 164,669.

Personnel in the material control unit were responsible for handling moves, deliveries of supplies, furniture, etc., processing orders, and updating bulletin boards. Volumes were: moves 76; processing orders 5,890; deliveries 4,573; bulletin boards 94 hours; D & V material orders processed 43,888.

Telecommunications

Various telecommunications projects were undertaken in the past year, including the completion of the New Liskeard and Owen Sound mobile radio systems.

Teleconferencing continued to be used with increasing frequency. The existing system was not expanded in the past year; however, the system reliability was improved as the result of continuous representations to CNCP Telecommunications for better system monitoring, especially with regard to the automatic bridge arrangement.

The non-directional radio beacon program has ended with the takeover by Transport Canada of most of the existing sites. The Ministry-owned equipment at these sites will be retrieved, and presently, Special Services Office is assessing how the retrieval can be accomplished most expeditiously.

During the past year, some experimental work was done on development of an automatic phone patch for use with mobile radio systems during periods when radio consoles are unmanned. Some success was

achieved and it is hoped that in the near future, it will be possible to produce a modified unit which will allow switched network access from any radio system repeater in the event of an emergency.

In the field of telephones and telephone systems, extensive changes in the Downsview and Queen's Park complexes took place, in particular, in telephone layouts for drivers and vehicles offices.

A new electronic key telephone system was installed in the strategic policy area and was well received by the users. This new system was the "Vantage 12" offered by Bell Canada.

Many other telephone layout changes were carried out in ministry offices as the result of organizational and personnel changes.

As the use of computers and word processing equipment increases, the requirement for communication and data circuits also increased and the past year saw a substantial number of such circuits installed.

Replacement of private wire teletype service for the handling of administration and road report information was again the subject of an

in-depth investigation of alternative methods. The greatest promise for such a replacement system appeared to lie in the use of microcomputers and the dial-up facilities offered by common carriers.

During the past year the number of telecommunication-related orders issued and completed totalled 645.

Administrative Improvement Section

Staff conducted 18 word processing studies; 11 of the client areas completed the implementation. The remaining seven areas will not complete the implementation stage as funding has not been made available.

Post study involvement included selection and acquisition of word processing equipment, client training and development of special applications.

The applications development stage was designed to assist client areas in the development of time-saving applications, utilizing word-processing equipment and advanced software. Five client areas were assisted with the applications, development stage, undergoing system upgrades.

Internal Audit Branch

Staff continued its traditional audit activities for both Ontario Ministries of Transportation and Communications and the Ministry of Northern Affairs.

The branch's role, mandate and operating methods were reviewed in light of MTC's concern for improving the effectiveness of auditing resulting in a change in audit policy. Consequently the branch was restructured during the latter part of 1982, enabling it to provide the deputy minister with timely, independent evaluations of the effectiveness of financial and management control systems. And selected activities, performed by audit,

but better performed by the accountable line manager, were transferred.

The following comments reflect the nature of work executed during the year.

Engineering Audit Office

Staff located in five regional offices and head office, is now responsible for auditing expenditures on ministry-owned and subsidized contracts. Regional offices reviewed and analysed



the adequacy of payment records for compliance with governing specifications, standards and regulations.

At head office, claims and design section staff were engaged in the auditing of MTC's and contractors' records related to engineering claims — in association with the Engineering Claims Office. Values ranged to a high of \$1,148,000. In addition, they analysed MTC contract price negotiations and conducted design audits to ensure adherence to MTC requirements.

Head office staff, in payments and procedures groups, audited data in support of final payment on capital and municipal contracts; reviewed and approved supplemental estimates of cost which required audit certification prior to approval; and reviewed sundry payment certificates to ensure validity and accuracy.

Project & EDP Audit Office

A number of audits on the records of private enterprises were carried out relating to engineering claims from contractors and extra costs on contract work. Special agreement expenditures incurred by the Urban Transportation Development Corporation were also audited.

Guided by the long-term ADP audit plan and new computer systems being developed, reviews were undertaken on a number of major computer systems: direct deposit; Canadian Agreement on Vehicle Reciprocity (CAVR); a joint review with operational audit on the structural office where some of the computer systems were addressed and reported on during the year. And a compliance review was performed on data security involving the implementation of the software package, Resource Access Control Facility (RACF).

In addition, section staff continued to review and comment on the development of new systems: Vehicle Registration System Project (VRSP);

Driver Study Research Project (DRSP); and Operations Management System (OMS). A review of the OMS was also initiated toward the end of the fiscal year.

Staff also lectured at various construction technical courses as well as conducting in-house training programs for development of engineering audit staff. They also performed special assignments, answered queries and provided assistance on engineering-oriented matters where their expertise was required. They also attended various meetings related to development and revision of construction specifications, standards, and procedures.

Effective January 1983, head office staff previously engaged in payment and procedure activities, together with those conducting engineering claims and negotiation analyses, were transferred to the contract management and engineering claims offices, respectively, where their activities will be continued. Other activities have been also realigned to address the requirements of systems-oriented auditing and reporting.

Operational Audit Office

Personnel are responsible for conducting audits of MTC's financial and management control systems, the Ministry of Northern Affairs and related crown agencies reporting to both ministers.

Audits conducted during the year included The Ontario Northland Transportation Commission, Highway Engineering Division, Office of Legal Services, Supply and Services Branch, the Consultant Assignment Process, Hamilton and Cochrane districts. Audits currently underway include the Ministry of Northern Affairs, Communications Division, and Central Region.

Municipal audit section staff performed transfer payment audits in municipalities throughout the province for both MTC and the Ministry of Northern Affairs. Effective January 1, 1983 this section was transferred to the Municipal Transportation Division where it performs the same function.

Financial Planning and Administration Branch

Budgetary Planning and Control Office

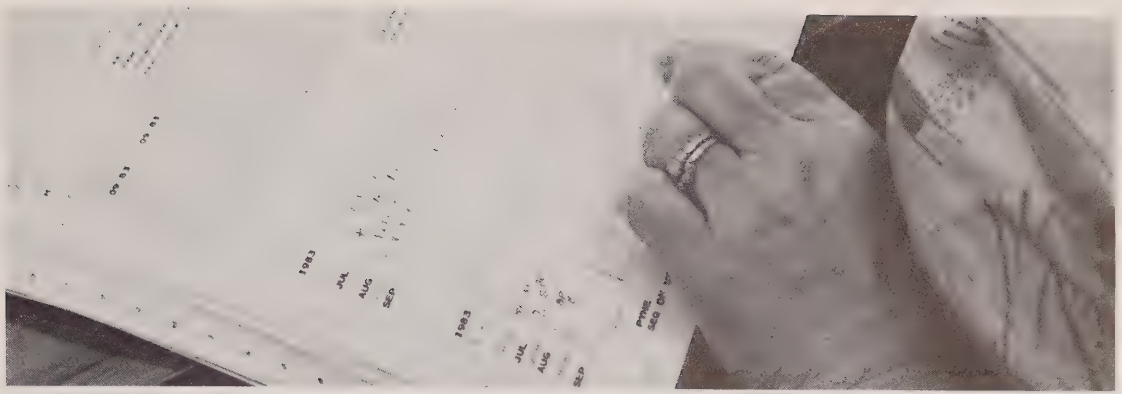
Personnel were responsible for acting as a liaison with Management Board of Cabinet, Ministry of Treasury and Economics, other central agencies and planning, evaluating, developing, controlling and analysing MTC's budget which consists of three sections:

The budgetary development section was primarily involved in acquisition of funding and staff to produce MTC's annual expenditure budget. It coordinated preparation of the

expenditure and revenue estimates submission, represented the ministry throughout the resources allocation process and developed MTC's request for personnel and financial requirements in the ensuing fiscal year.

Budgetary control and analysis staff monitored expenditures and revenues, identified deviations and developed financial options for resolution. It also provided support to program managers in the in-year management of financial resources.

Budgetary planning and evaluation staff coordinated integration of the MBR concept with MTC's existing management processes.



Qualification Control Office

Staff maintained and used procedures to ascertain contractors' abilities to meet ministry prequalification standards, initiating, developing and implementing improvements in methods of prequalification criteria and ratings, monitored claims made by contractors and their resolutions.

They also mediated between sub-contractors and prime contractors on claims made under the MTC Creditors Payments Act.

Chief Accountant's Office

Staff was responsible for all those functions usually associated with a large accounting organization — payroll, accounts payable and receivable, maintenance of financial records and preparation of financial statements.

There were three key areas of responsibility:

Expenditure office staff developed operational policies and procedures related to accounts payable, expense accounts, payroll and subsidies. It maintained and utilized procedures for the issuing and distributing of payroll cheques, processing of accounts, payable data for the issuing of treasury cheques and provision of expenditure information.

It also monitored expense account data to ensure compliance with regulations and the provision of statistical information.

Personnel from the revenue control office developed operational policies and procedures related to revenue accounting and cost sharing. They processed and recorded accounts receivable data and reconciled the concentrator account (Treasury Advance) for all local payments and advances.

They deposited all revenue received to the Consolidated Revenue Fund and all refund of expenditure to Treasury. As well, they reconciled all monies received by Treasury to the agent deposits for the Direct Deposit System of Safety and Regulation Division.

Staff also established accounts receivables for shareable agreements made by the ministry, compiled, prepared and distributed all statistical financial documents related to MTC activities.

Accounting and Administration head office staff provided a regional accounting function for all head office cost centres and MTC agencies as well as the Ministry of Northern Affairs.

Financial Systems Office

Personnel provided expertise in both computer and manual financial systems processes to aid managers in the effective management of financial resources. They were responsible for the introduction and upgrading of financial systems while continuing to maintain a high degree of efficiency within current systems.

This provided financial analysis and evaluation for in-year monitoring and control, performance assessment, financial information and reporting for managers.

Human Resources Planning and Services Branch

The past year saw the former Personnel Branch reorganized to become the Human Resources Planning and Services Branch. This change emphasized the ministry's increased awareness of the importance of human resources and the need to manage them more effectively to achieve organizational goals.

The reorganization addressed the need to ensure that both senior management and line management received appropriate information as part of the decision-making process. A major objective was to have the right number and the right mix of productive staff available where and when required.

In the service area, restructuring brought together under one manager the staffing and classification functions and established an expanded labor relations office.

There was increased focus on human resource planning, including the start of a long-range human resource plan, covering all program areas; more training of line managers in human resource management techniques and practices; the creation of a section to concentrate on high priority studies of

significant current and emerging concerns related to human resources.

The Occupational Health and Safety Office also changed its reporting relationship and became part of the new branch. These and other initiatives better enabled staff to develop and implement future human resource programs sensitive to the economic and policy needs of MTC.

Benefits and Personnel Records Administration Section

Staff administered employee benefits and group insurance programs as well as maintaining human resource records and providing administrative support services to the branch.

Major changes during the year included introduction of paid maternity benefits and insurance for vision care and hearing aids.

They also provided advice and



information on pension matters to employees and their families and an information service to employees and managers for insured benefits; and administration and documentation of employees regarding classification and pay changes processed in the corporate integrated payroll, personnel and employee benefit system.

Initiatives and Development Section

Personnel developed and coordinated a comprehensive work program aimed at a wide spectrum of human resource planning and service issues.

They conducted special studies and surveys and devised innovative policies and procedures in relation to existing or evolving branch or ministry human resource issues. Since its inception in the fall of 1983, personnel have also been involved in a number of projects, including a review of the ministry summer student program and internal studies related to word processing and budgetary preparation.

Other activities included the conducting of employee opinion surveys, research of trends for the human resource position and prospects papers, and assisting in developing long-range human resource policies and principles.

Classification and Pay Administration Section

Staff initiated, developed and administered policies and procedures governing ministry classification activities to ensure a standard and equitable job evaluation system, and provided support to line managers on related matters.

Major changes affecting classification

included the establishment of the GO ALERT organization; and a major change in the head office structure. These changes combined with a review of inclusion/exclusion of employees in the management group and the implementation of the government policy on credentialism, resulted in changes to classification for over 600 jobs.

Another major activity was further delegation of authority to the regions and, working with the Civil Service Commission, an extensive review of classification system for the clerical and office service groups.

Other activities included investigation and resolution of organization, classification and pay administration problems and grievances; and the administration and maintenance of classification and pay-related personnel information systems.

Human Resource Staffing Section

Personnel initiated, developed and administered policies and procedures governing ministry staffing activities, to ensure in MTC and MNA an equitable selection and placement of suitably qualified people with appropriate experience and skills required to meet the ministries' needs.

The major project was the Kingston relocation which involved transfer of a large number of staff to Kingston and placement of the employees who did not wish or were unable to relocate. Staff were also actively involved in the Summer Experience Program, to employ students in conjunction with the Youth Secretariat. It introduced a new job-posting system and produced a new "How to Hire" booklet for the use of line managers.

Major activities included a staffing service to fill permanent and temporary vacancies in head office; training on staffing matters; advice to the public and guidance to ministry personnel. Personnel also coordinated a surplus reassignment program and recruited multi-disciplinary graduates.

Staff Development and Training Section

Staff provided a comprehensive program of training and development as well as consultant advice to ministry management and staff regarding human resource development and related management issues. Its objectives were the promotion of organizational, development and employee competence.

During 1982 they facilitated implementation of management by objectives for all organizational areas reporting directly to the deputy minister. The unit continued in its implementation of four-tiered management training, with the senior seminar — Management '82, addressing human talent and achievement issues over the next decade.

Personnel also initiated a pilot office automation orientation program, illustrating MTC's commitment to provide its managers with the knowledge and skills they need to benefit from new opportunities and technologies.

Human Resources Planning Section

Section staff developed human resources planning processes and policies, collected and maintained relevant and current MTC employee data; provided administrative support to line managers, subcommittees and the human resources committee.

During the year, staff was heavily involved implementing Management Improvement Branch study recommendations. In particular, they aided the various human resources committees in changing their roles and

responsibilities and establishing stronger linkages between committees. Another major achievement of the section was the overhaul of the computer-based human resource inventory (HRI) which it maintained.

Staff Relations Office

Office staff managed a full range of labour relations services; interpreted and assisted with administration of existing policies; procedures and collective agreements; and developed strategy and MTC policies and philosophies in the labour relations area.

Last year saw introduction of a greatly expanded staff relations function at MTC. Headed by a manager, its major activities included administration of the collective agreement, providing policy direction on staff relations to ministry management; coordinating all aspects of grievance procedure and contract administration; developing and implementing a plan for training line managers; and improving their labour relations knowledge and skills, and participating in union negotiations.

French Language Coordinator

A full-time French-language coordinator, R.J. Bourque, was appointed for the ministry, and, during the year, took fundamental steps to implement the government's initiatives including:

- development of a French-language services policy, approved by SPC;
- the use of bilingual letterheads for all correspondence in ministry offices located in designated areas;
- several major programs affecting the public were developed and, in each case, publicity for these programs was made available in a bilingual format, or in separate French-English versions. Two of these were the "Plate to Owner" licensing system and the "Child Restraint Program."

In addition, MTC continued to be very active in its inter-provincial relations especially with the Ministry of Transport for the Province of Quebec.

During 1983 the ministry will endeavour to improve its French-language services to the public in designated areas as well as propose new initiatives.

Occupational Health and Safety Office

Office personnel provided service to employees and line managers through development of preventive occupational health and safety programs; identification of hazards and potential hazards in the workplace; and the education and training of staff in related health and safety matters to promote a healthy and safe working environment.

Achievements included initiation of a computerized program for all Workmen's Compensation Board (WCB) claims, and computerization of data related to the audiometric testing of employees. New initiatives were

directed at the protection of MTC personnel on the highway and the use and control of toxic substances. Additionally, lead contamination seminars were conducted throughout the province, and a level II explosive course was provided.

Other activities included management of medical surveillance programs of employees exposed to designated toxic substances; administration of WCB claims and coordination of health and safety programs with the union through the joint senior/management health and safety committees.

Claims Office

Claims office staff initiates claims on behalf of MTC against third parties for damage to Crown property arising from accidents on the King's Highway; investigates and resolves, frequently by negotiation, claims made against MTC (and, in some cases, the provincial government) arising from a variety of circumstances, such as:

- accidents involving provincial government vehicles;
- accidents resulting in injuries to government employees, while on duty, by the action of a third party;
- accidents arising from alleged lack of maintenance to the King's Highway;
- accidents or emergencies on the King's Highway necessitating the presence of municipal fire departments;
- accidents or damages to third parties as a result of highway construction work;
- damage or flooding to third party property arising from alleged improper drainage;
- depletion of rural well water supplies or pollution of wells allegedly from highway construction work, winter road maintenance or sand/salt storage facilities;
- damage to private residences allegedly attributed to vibration from construction work or dynamite blasting;
- crop damage claims said to have been caused by weed spraying operations;
- spraying of automobiles or private property during mulching operations or highway zone-stripe painting; and,
- claims arising from incorrect computer information emanating from the Drivers and Vehicles Branch.

The handling of such claims entailed obtaining detailed reports from regional and district offices, from police, where applicable, and field investigations where necessary.

With regard to accidents involving provincial government vehicles, the staff handled such matters not only for MTC but the entire Ontario Government with the exception of the Ontario Provincial Police.

Staff instituted claims against the public for damage to Crown property such as bridges, light standards, guide rails, etc., and, where necessary, arranged for legal action to be taken against responsible parties through the Ministry of the Attorney General.

Legal Services

This office provides legal services to the minister and MTC staff. Legal officers are members of the Ministry of the Attorney General's staff seconded to MTC located at head office and in each of the regions except Thunder Bay.

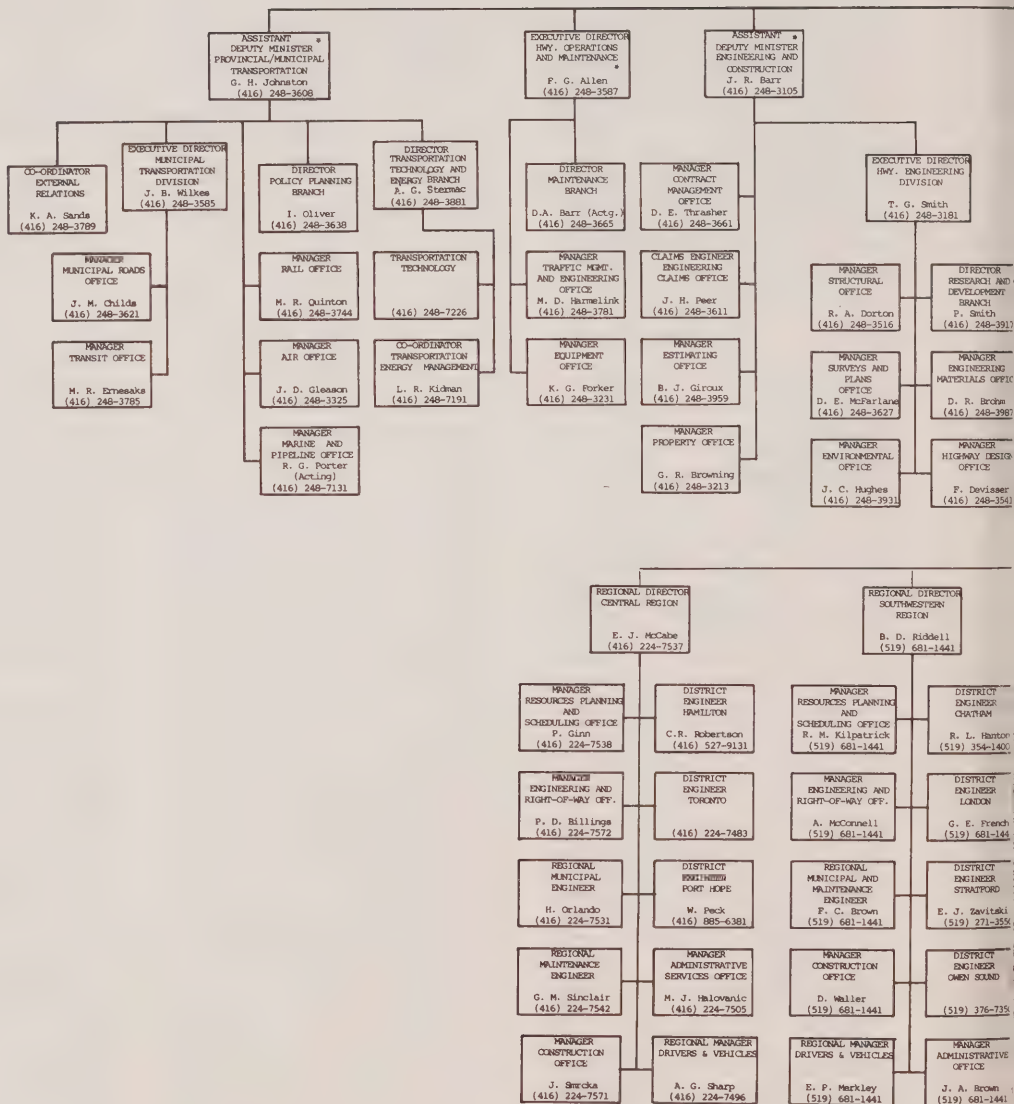
Staff provide legal advice on all aspects of the ministry's programs and prepare legal documentation through which such programs are carried out, e.g. ministry contracts, claims, property acquisitions and disposals.

The office advises on legislation affecting the ministry and prepares and recommends amendments to the statutes administered by the MTC.

Legal office counsel provide ministry representations before administrative boards and tribunals with which MTC comes in contact, and conducts prosecutions for offences under the Ministry's statutes, e.g. The Highway Traffic Act and Public Vehicle Act.

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CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
7	Fail to register a vehicle	4,581	5,460
9(1)	False statement	75	59
9(2)	Fail to notify new address	2,009	2,363
10	Fail to have number plates	15,068	14,623
12	Violations as to number plates	2,959	2,188
13	Improper use of number plates	799	837
18(1)	No driver's licence or improper class	20,292	20,316
18(3)	Driving in breach of condition	409	1,053
19	Fail to produce operator's licence	23,576	26,026
21(1) a,b,c,d,e	Driver licence violation	508	620
22	Drive suspended in Ontario — Licence out-of-Province	19	26
23	Operation of motor vehicle by person under 16	143	117
24	Driving motor assisted bicycle under 16	5	0
30(2)	Unlawful possession of permit	14	4
30(3)	Unlawful possession of licence	118	135
35	Driving while licence is suspended H.T.A.	8,341	10,118
41	No garage licence	6	0
42	Record of wrecked vehicle violation	13	5
44	Improper light	11,056	12,639
46	Defective brakes	1,692	1,591
48	Faulty equipment (mirror, windshield, etc.)	445	531
52(1)	Defective — improper tires	41	68
52(2)	Improper attachment on wheels	15	7
55(1) a & b	Driver view obstructed	619	188
55(2)	Colour-coating obstructing view	108	152
55(3)	Obscured interior colour-coated windows	419	406
56(1) a & b	Windows obstructed	1,189	1,307
57	Excessive noise/smoke/fumes	18,176	15,112
58	No slow-moving-vehicles signs	62	75
61(2)	Radar warning device prohibited	754	731
62	Fail to have proper trailer attachments	1,027	1,033
65(2)	Unsafe vehicle	5	5
65(3)	Failing to submit to vehicle inspection	1,431	1,276
67	Drive unsafe vehicle	3,192	2,944
68(1)	Operate vehicle — fail to display device	835	847
69	Affix vehicle inspection sticker not MTC issue	5	4
71	Certificate of mechanical fitness violation	41	30
87	No name of owner on commercial vehicle	1,086	1,040
88	Drive/ride motorcycle no safety helmet	2,005	1,861
90(2)	Remove/modify/inoperative seat belt assembly	1,086	1,194
90(3)	Failure/improper use seat belt assembly — driver	67,242	74,583
90(4)	Passenger — failure to ensure seat belt use	9,307	6,159
90(6)	Driver — failure to ensure passenger seat belt use	622	841
92(1)(2)(5)(6)(9)(10)	Excessive vehicle width/length/height	637	1,748
93(7)	Special permit violation	1,790	471
93(1)	Overload in excess of permit	33	8
93(2)	Fail to produce commercial ownership permit	65	27
93(4)	Spring Regulations — Overload	18	10
94(1 & 2)	Overhanging load/improper loading	1,982	2,004
98(1) (1b)	Overweight — tires	9	91
99(1)a	Overweight — Single axle (single tire)	120	45
99(1)b	Overweight — Single axle (dual tires)	1,566	1,806
99(1)c	Overweight — Dual axle	8,312	7,237
99(1)d	Overweight — Triple axle	250	203
99(2)	Overweight — Dual axle (single tire)	13	
99(3)	Overweight — Triple axle (single tire)	5430	
99(4)	Overweight — Single front axle (no verification)	1	126
99(6)	Overweight — Single front axle (exceed rating)	4	26

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
100(a)	Overweight — Two axle group	58	79
100(b)	Overweight — Three axle group	103	175
100(c)	Overweight — Four axle group	47	21
101(/)(abc)	Gross vehicle overweight	1,949	2,094
101(2)(3)	Fail to produce/violate authority	13	12
102(3)	Overweight during freeze-up	148	151
103	Overweight on axle Class B highway	6	7
104(1)	Overweight in excess of permit	4,069	4,094
104(2)(5)	Fail to carry/produce permit	1,508	1,647
104(7)(8)	Overweight — March/April	127	0
109	Speeding 50 km/h or more over the limit	10,326	8,464
109	Speeding more than 29 less than 50 km/h	94,221	82,276
109	Speeding more than 15 less than 30 km/h	293,806	263,688
109	Speeding under 16 km/h	384,088	420,863
111	Careless Driving	19,358	17,839
113	Unnecessary slow driving	189	186
114	Fail to obey signal of police officer	365	270
114(3)	Drive vehicle on closed road	0	217*
115	Fail to yield right of way	213	129
116	Fail to stop at through highway	53,267	56,946
118	Fail to obey yield sign	716	586
119	Fail to yield — from private road	6,465	6,995
120	Pedestrian crossover violation by driver	4,538	4,372
121(1)	Improper right turn	58	40
121(2)	Improper right turn at intersection	2,729	2,619
121(3)	Improper right turn — multi lane	4,827	3,418
121(4)	Improper left turn — across path of approaching vehicle	4,510	4,562
121(5)	Improper left turn at intersection	3,412	3,723
121(6)	Improper left turn — multi lane highway	1,294	1,469
122(1)	Fail to signal for turn	12,962	13,606
122(2)	Fail to signal-moving from parked position	3,225	3,639
122(4a)(4b)	Improper manual signal	8	9
122(5)	Improper directional signal	49	37
122(6)	Improper use of signaling device	82	73
122(7)(7a)(7b)	Fail to signal	102	135
123	Prohibited U-turns	238	182
124(5)	Disobey red signal light	48,364	50,708
124(7)	Disobey amber light	12,814	11,855
124(8)(9)(10)(11)	Flashing red-amber-green arrow	2,446	2,946
124(12)	Fail to give right-of-way to pedestrian	825	922
124(13)	Prohibited turn	23,705	29,583
124(25)	Disobey traffic signal	0	5
125(3)	Disobey portable lane control signal — red light	98	94
125(4)	Disobey portable lane control signal — amber light	28	39
126	Drive right side of multi-lane highway	257	227
127(1)(2)	Fail to share the road	2,289	2,183
127(3)	Fail to move to right	174	194
127(4)	Vehicle or horsemen overtaking others	450	461
127(5)	Horsemen or vehicles overtaking bicycles or tricycles	32	50
127(6)	Improper passing	30	38
127(7)(a)(b)	Improper passing	1,270	1,093
128	Driving left of centre of highway	1,651	1,498
129(1)	Passing to right of vehicle	26	69
129(2)	Unsafe passing to the right	3,155	3,012
130(1)	Fail to obey signs posted on paved shoulder	501	932
132	Wrong way on a one-way street	5,766	6,194
133(a)	Unsafe lane change	5,676	5,734
133(b)	Drive in centre lane of three lane highway	210	161
133(c)	Fail to drive in slow moving traffic lane	4,472	4,473
135(a)(b)	Improper driving on divided highway	863	643
135a	Backing on highway	0	604*

*New method of recording 1982

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
136(1)	Following too closely	15,409	15,236
136(2)	Following too closely in commercial vehicle	446	386
137(1)	Fail to yield to fire department vehicle, etc.	385	360
137(2)	Following a fire department vehicle	13	15
140	Crowding driver	678	743
141	Fail to stop for crossing (signal)	211	161
142	Drive through under or around railway barrier	289	190
143	Improper opening of vehicle door	193	279
144(1)	Improper approach or passing a stopped streetcar	130	147
144(2)	Pass streetcar on left side	29	34
145	Improper driving when approaching animals	2	2
146	Fail to use passing beam	1,049	887
147	Improper parking on highway	777	675
147(8)	No warning lights on commercial vehicle	32	22
147(9)	No flares	37	55
147(10)	Vehicle interfering with traffic	885	593
148	Racing	117	112
150(b)	Failure to stop school bus or public vehicle at railway crossing	26	26
151(5)(5a)(5b)	Fail to stop for school bus	2,260	2,715
151(6)	School bus: Fail to actuate signals	23	20
151(9)	Unlawful use of red signal lights on school bus	4	7
151(11)	School Bus: Failure to cover signals and signs	21	21
152(3)	Fail to obey school crossing stop sign	128	119
156	Littering highway	1,223	1,175
158(2)	Disobey legal sign	0	226*
159(2)	Fail to obey a direction sign	4,436	4,222
173	Fail to report an accident	4,166	4,144
174	Fail to remain at the scene of an accident	2,403	2,927
175	Fail to report damage to highway property	762	698
189a	Fail to stop for police	14	631
	Others	17,042	17,059
	TOTAL	1,293,706	1,304,637

*New method of recording 1982

SUMMARY OF CONVICTIONS

	1981	1982
Criminal Code	51,911	48,633
Highway Traffic Act	1,293,706	1,304,637
Regulation H.T.A.	11,171	10,456
Municipal Bylaws	29,204	27,469
Motor Vehicle Accident Claims Act	52	6
Compulsory Automobile Insurance Act	21,718	21,444
Public Commercial Vehicles Act	4,438	2,387
Public Vehicle Act	2	25
Motor Vehicle Transport Act	0	1,027*
TOTAL	1,412,202	1,416,084

*New method of recording in 1982

REGULATIONS UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1981	1982
484	School bus violation	51	40
469(14)(15)(16)(17)	Number plate violation	590	2,416
462(4)	Motorcycle violation	690	326
462(13)	Classified licence violation	221	475
462(19)	Fail to notify name/address change	2,637	2,318
462(20)	Fail to sign licence	761	844
469(21)	Only single beam headlight	23	10
477(4)	Improper parking	144	414
494(2)	Prohibited use of studded tire	208	158
	Others	5,846	3,455
	TOTAL	11,171	10,456

CONVICTIONS REGISTERED UNDER THE CRIMINAL CODE (CANADA)

SECTION	OFFENCES	1981	1982
203	Criminal negligence causing death	20	17
204	Criminal negligence causing bodily harm	9	9
233(1)	Criminal negligence	155	122
233(2)	Fail to remain	2,097	1,740
233(4)	Dangerous driving	1,802	1,435
234	Drive ability impaired	21,099	19,769
234.1	Roadside	288	524
235(2)	Fail to take breathalyzer	3,450	3,387
236	Over .08 alcohol	22,219	21,660
238(3)	Drive while disqualified	772	0
	TOTAL	51,911	48,663

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

SECTION	OFFENCES	1981	1982
2(1)	Drive or permit to drive unregistered vehicle	125	297
2(2)	Fail to register vehicle	0	0
2(3)	Fail to provide evidence of issue of permit (no plate)	0	3
2(7)	Fail to display registration number	148	218
2(8)	Fail to display evidence of permit	242	420
3(1)	Make false statement	11	1
3(2)	Fail to notify change of address	5	3
3(3)	Fail to notify change of ownership	0	35
4	(Plate) — Registration number obstructed	0	2
4(2)(a)(b)	Use defaced or altered plates	0	0
4(2)(c)	Improper plates	0	0
5	Drive on prohibited highway	55	90
6(2)	Drive in area not designated	6	0
7	Improper crossing of Highway	0	8
8(1)(2)	No operators licence driving along/across Highway	23	165
11(1)	Operate/permit operation uninsured vehicle	219	270
11(2)	No insurance	0	11
11(3)	Fail to produce evidence of insurance	15	61
11(4)	Produce false evidence of insurance	0	0
12(1)	Fail to report collision	20	26
12(2)	Police officer fail to forward report of accident	0	0
13(1)	Speeding	26	44
14	Careless Driving	44	61
15(1)	Fail to produce licence	36	68
16	Remove device	0	2*
16(1)	Improper muffler	0	0

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

17	Towing on serviced roadway prohibited	0	2
18	No helmet	95	208
25(3)	Disobey signs on highway or public trail	4	38
	Others	65	41
	TOTAL	1,144	2,074

*New method of recording 1982

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

SECTION	OFFENCES	1981	1982
2	Disobey police officer	0	12
3	Fail to yield to vehicle on right	2	3
4	Disobey sign	15	8
5(1)(b)	Fail to yield — from adjoining property	0	5
5(2)	Improper crossing of roadway	0	0
6(3)	Improper left turn	0	0
7(1)	Fail to signal	0	2
7(2)	Fail to signal from stop position	0	2
7(3)	Improper signal	0	0
7(4)	Fail to signal stop	0	0
8(a)	U-turn-no clear view	0	1
8(b)	U-turn railway crossing	0	0
8(c)	U-turn hill-no clear view	0	0
9	Disobey traffic signal light	1	3
10(1)	Fail to share roadway	0	8
10(2)(b)	Passing when roadway not clear	1	0
11	Drive left of centre	2	0
12	Pass on right — not in safety	0	2
13	Following too closely	0	2
14(1)	Fail to stop at railway crossing	0	0
14(2)	Cross railway improperly	0	0
15(1)(a)	Park on roadway	0	0
16	Speeding	0	0
17	Improper or no lights	4	31
19(a)	Drive on Kings Highway (prohibited)	0	0
	Others	5	0
	TOTAL	30	79

CRIMINAL CODE OF CANADA (MOTORIZED SNOW VEHICLES)

SECTION	OFFENCES	1981	1982
233(2)	Fail to remain	0	0
233(4)	Dangerous driving	0	0
234	Impaired driving	5	9
235(2)	Fail to take breathalyzer	1	1
236	Over .08 alcohol	2	3
238(3)	Drive while disqualified	0	0
	TOTAL	8	13

MUNICIPAL BYLAWS (MOTORIZED SNOW VEHICLES)

SUMMARY OF CONVICTIONS (MOTORIZED SNOW VEHICLES)

Motorized Snow Vehicles Act	1,144	2,074
Criminal Code of Canada	8	13
Regulations	30	79
Bylaws	0	0
TOTAL	1,182	2,166

SUSPENSIONS

COURT ORDERED SUSPENSIONS H.T.A.

	1981	1982
Careless driving	342	329
Speeding over 30 mph (50 kmh)	219	237
Racing	11	13
Fail to remain	151	123
Drive while licence is suspended (H.T.A. Section 35)	1,142	0
Mandatory suspension H.T.A. effective 19/11/81 (Section 35)	901	9,013
Other	96	259
TOTAL	2,862	9,974

DEMERIT POINT SYSTEM SUSPENSIONS

6 & 15 demerit point accumulation	9,223	13,019
Fail to attend interview	1,031	912
As a result of interview	634	1,121
TOTAL	10,888	15,052

DISCRETIONARY SUSPENSIONS (H.T.A. – SECTION 30)

Medical or physical condition	896	812
Fail to file medical report	1,028	2,234
TOTAL	1,924	3,046

SUSPENSION FOR:

Motor Vehicle Accident Claims	2,776	1,410
Failure to pay judgment	1,123	1,171
Default in payment of traffic fine	66,002	76,507
TOTAL	69,901	79,088

MANDATORY SUSPENSION H.T.A. FOR CRIMINAL CODE OFFENCES

Criminal negligence	182	147
Dangerous driving	1,783	1,424
Impaired	20,776	19,495
Failure to provide breath sample	3,386	3,347
Blood/alcohol .08	21,748	21,269
Fail to remain at scene	2,048	1,752
Drive while disqualified	768	0
Fail to provide (RDSI)	273	500
TOTAL	50,964	47,936
TOTAL OF ALL SUSPENSIONS	136,539	155,096

DEMERIT POINT SYSTEM

1981

1982

DRIVER IMPROVEMENT ACTIONS

Advisory letters issued	144,304	129,104
Interviews conducted	35,099	37,016

SUSPENSIONS

Drivers who reached suspension level through point accumulation (15 points)	6,968	5,498
Drivers who reached suspension level through point accumulation (6 points)	1,139	6,843
Drivers who reached suspension level through point accumulation (Second 15 point accumulation)	1,116	678
Drivers suspended for failure to attend interview	1,031	912
Drivers suspended as a result of unsatisfactory interview	634	1,121
Total suspensions under point system	10,888	15,052

SUSPENSIONS

DRIVER MEDICAL REVIEW

Total Cases Reviewed	89,663	86,782
Satisfactory Reports	86,085	84,709
Unsatisfactory reports as to class	2,604	1,162
Totally unsatisfactory	974	911
New Medical Waiver Programme (Effective March 1981)		
Waivers granted	126	203
Waivers denied	36	35

DRIVER OPTOMETRICAL REVIEW HIGHWAY TRAFFIC ACT

Total Cases Reviewed	4,170	5,824
Satisfactory vision reports filed	1,495	2,697
Drivers to wear prescribed lenses while driving — no previous restriction	2,377	2,920
Unsatisfactory vision reports	298	207

Driver Control Statistics 1982 Summary

	1980	1981	1982
NUMBER OF LICENSED DRIVERS IN ONTARIO	4,993,531	5,123,177	5,247,177
CONVICTIONS RECORDED IN RESPECT TO THE OPERATION OF:			
Motor Vehicles	1,386,938	1,412,202	1,416,084
Motorized Snow Vehicles	775	1,182	2,165
TOTAL	1,387,713	1,413,384	1,418,249
TOTAL DRIVER LICENCE SUSPENSIONS APPLIED	142,319	136,539	155,096
MEDICAL AND OPTOMETRICAL REVIEWS CONDUCTED	80,952	93,833	92,606

Trends in Motor Vehicle Accidents

Death and Injury Rates Over the Period 1973-1982

From 1973 and the end of 1982, Ontario's population and the number of licensed drivers, motor vehicle registrations and motor vehicle accidents (with the exception of the years 1976, 1978, 1980 and 1982) were all on the rise. During the past ten years, traffic deaths reached a high of 1,959 in 1973 and declined to a low of 1,138 in 1982, the lowest annual fatality total since the year 1958 when 1,112 persons were killed.

In the past year, the number of deaths decreased 21.2% from the 1,445 deaths in 1981 to 1,138 deaths in 1982. The population grew from 8.63 million to 8.70 million. The death rate per 100,000 population decreased

to 13.1 from 16.8 last year. The death rate over the past ten years ranged from 24.7 to 13.1. The 1982 death rate of 13.1 is the lowest since the year 1944 at which time the population was 3.96 million and the death rate was 12.6 per 100,000 population.

There was a decrease of 7,506 persons injured, from 100,321 in 1981 to 92,815 this year. The 1982 injury rate per 100,000 population decreased to 1067 from 1163.1 in 1981.

Last year, the number of motor vehicle accidents reported totalled 187,943 a decrease of 5.2% against the 1981 total of 198,372. There were decreases of 19.2% in fatal accidents and 21.2% in persons killed. The

personal injury accidents and persons injured decreased 6.4% and 7.5% respectively.

The motor vehicle accident rate per one million kilometres travelled this year remained the same as last year at 2.8 and the fatal accident rate per 100 million kilometres travelled decreased to 1.5. The death rate per 100 million kilometres travelled decreased from 2.0 in 1981 to 1.7 this year. The 1982 death rate of 1.7 is the lowest since 1955.

The number of kilometres driven in 1982 was estimated at 66,284,098,000 a decrease of 6.5% from the 1981 figure of 70,905,834,000.

MINISTRY EXPENDITURE BY HIGHWAY

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
2	Lancaster-Windsor	6,365,226	3,953,108
3	Fort Erie—Windsor	9,746,954	2,086,232
4	Port Stanley—(Creemore)	1,623,326	1,279,005
5	Toronto—Paris	4,905,477	788,806
6	Hwy. 24—Tobermory	3,864,767	3,131,201
7	Ottawa—Sarnia	13,842,944	4,607,098
7A	Hwy. 115—Hwy. 12 (Manchester)	23,742	233,617
7B	Peterborough—Chemung Corners	—	71,401
8	Winona—Goderich	864,185	798,585
9	Hwy. 11—Kincardine	2,605	1,092,700
10	Port Credit—Owen Sound	469,098	1,268,417
11	Toronto—Rainy River	26,001,304	10,782,462
11B	At New Liskeard	20,098	68,913
12	Whitby—Midland (7)	1,792,448	863,139
14	Bloomfield—Marmora	6,164,319	292,618
15	Kingston—Carleton Place	49,715	557,413
16	Johnstown—Ottawa	3,003,827	453,413
17	Quebec Boundary—Manitoba Boundary	27,509,111	11,047,237
17B	At North Bay	—	5,526
18	Leamington—Windsor	429,021	240,845
19	Port Burwell—Tralee	713,396	588,228
20	Niagara Falls—Hamilton	600,727	451,793
21	Hwy. 3 (Morpeth)—Owen Sound	1,092,990	1,320,260
22	London—Hwy. 7	—	214,137
23	Hwy. 7—Hwy. 9 Teviotdale	928,145	496,692
24	Hwy. 59—Collingwood	526,425	1,099,309
24A	Paris—Galt	—	44,874
25	Oakville—Hwy. 89	2,140,041	628,670
26	Barrie—Owen Sound	15,478	598,242
27	Toronto—Penetanguishene	2,313,709	1,037,589
28	Port Hope—Bancroft	731,372	925,468
29	Brockville—Arnprior (15)	98,221	428,570
30	Brighton—Havelock	1,722,328	211,917
31	Morrisburg—Ottawa	1,208,415	473,122
32	Gananoque—Hwy. 15	32,384	75,297
33	Kingston—Stirling	3,125,995	542,057
34	Hwy. 2 (Lancaster)—Hawkesbury	69,567	381,485
35	Hwy. 401 (Newcastle)—Dwight	5,198,918	777,837
35A	Fenelon Falls—Hwy. 35	—	14,197
36	Burleigh Falls—(Hwy. 7)	6,304	325,975
37	Belleville—Hwy. 7 (Actinolite)	6,905	189,649
38	Kingston—Hwy. 7 (N. of Sharbot Lake)	15,546	334,960
40	Blenheim—Sarnia	377,441	431,377
41	Napanee—Pembroke	110	1,043,227
42	Brockville—Westport (29)	6,417	223,378
43	Alexandria—Perth	—	897,595
44	Hwy. 17—Hwy. 29 (Almonte)	—	77,470
45	Cobourg—Norwood	1,301,398	236,759
46	Hwy. 7 (E. of Manilla)—Bolsover	2,475	117,747
47	Hwy. 48 (N. of Hwy. 7)—E. of Hwy. 12	26,263	300,227
48	Toronto—Hwy. 35 (Coboconk)	259,537	791,022
49	Picton—Hwy. 401 (W. of Desoronto)	3,830	105,359
50	Toronto—Hwy. 89	341,225	529,235
51	Rondeau Prov. Park—Jct. Hwy. 3	—	21,557
52	N. of Hwy. 97S—Hwy. 2	370,164	170,730
53	Hamilton—Hwy. 2 (Eastwood)	10,016	388,926
54	Cayuga—Cainsville	17,645	507,439
55	Hwy. 401—Niagara	922,524	161,251
56	Jct. Hwy. 3—Jct. Hwys. 53 & 20	48,432	224,789
58	Port Colborne—St. Catharines	390,860	272,777
58A	Port Colborne (Hwy. 58 to Jct. Hwy. 14)	1,870	—

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
59	Long Point—Shakespeare	42,083	540,920
60	Hwy. 17 (W. of Renfrew)—Huntsville	957,918	1,228,845
61	International Bdry.—Thunder Bay	—	273,933
62	Hwy. 14 (N. of Belleville)—Pembroke	2,603,758	1,246,941
63	North Bay—Quebec Border	—	384,151
64	Sturgeon Falls—Hwy. 11	1,756,133	808,697
65	Quebec Border—Matachewan	106,776	554,838
66	Quebec Border—Hwy. 65	31,911	445,061
67	Iroquois Falls—Hwy. 101	30,481	153,982
68	Hwy. 17 (Espanola)—S. Baymouth	—	54,688
69	Hwy. 12 (N. of Brechin)—Capreol	221,602	1,643,337
69B	Parry Sound	1,015	—
70	Springmount—Hepworth	—	77,100
71	Fort Frances—Hwy. 17 (E. of Kenora)	589,139	600,143
72	Hwy. 17 (Dinorwic)—Sioux Lookout	104,334	212,763
73	Port Bruce—Dorchester	7,711	183,571
74	Hwy. 3 (New Sarum)—Nilestown	—	104,712
75	Canborough to Bismark	508,793	—
76	Hwy. 3 (Eagle)—Hwy. 2	774,407	78,077
77	Leamington—Hwy. 401 (N. of Comber)	904,905	85,707
78	Hwy. 21 (Dresdan)—Wallaceburg	—	55,559
79	Hwy. 2 (Bothwell)—Hwy. 7	1,345,308	231,010
80	Hwy. 2 (S. of Glencoe)—Courtright	—	275,949
81	Delaware—Grand Bend	1,953	313,218
82	Hwy. 7 Jct.—Hwy. 21	2,226	—
83	Hwy. 23 (Russeldale)—Hwy. 21	—	209,216
84	Hensall—St. Joseph	21,625	87,687
85	Kitchener—Elmira	25,273	—
86	Guelph—Amberly	882,802	623,635
87	Harriston—Hwy. 86 (Bluevale)	—	171,022
88	Bradford—Hwy. 27 (Bond Head)	—	49,717
89	Hwy. 11—Hwy. 23 (E. of Palmerston)	31,836	663,308
90	Barrie—Angus	179	125,831
91	Stayner—Duntroon	—	35,630
92	Elmvale—Wasaga Beach	—	63,792
93	Hwy. 11 (E. of Barrie)—Waverley	591,319	372,072
94	Callander—Hwy. 17 (S. of North Bay)	—	47,519
95	Alexandria Point—Wolfe Island	44,228	47,164
96	Port Metcalf—W. End of Wolfe Is.	284,784	148,355
97	Hwy. 6 (Freelton)—Hickson	2,457,371	142,128
99	Dundas—Hwy. 24 (N. of Brantford)	58,805	42,633
100	Jct. Hwy. 401 to London	12,663	19,172
101	Quebec Border—Hwy. 17 (Wawa)	2,633,529	2,170,168
102	Thunder Bay—Sistonens Corners	2,256,912	165,068
105	Hwy. 17—Red Lake	3,305,784	601,191
106	Hwy. 28 (Dale)—Hwy. 2 (Welcome)	—	18,757
108	Hwy. 17—Hwy. 639 (Quirke Lake)	1,004,990	168,900
112	Hwy. 11—Hwy. 66 (Swastika)	2,910	147,769
115	Newcastle—Peterborough	271,867	259,573
117	Jct. Hwy. 11—Jct. 35	—	187,593
118	Hwy. 11—Hwy. 169	60,902	517,130
121	Hwy. 28—Hwy. 35 (S. of Fenelon Falls)	5,411,404	571,118
124	Sundridge—Parry Sound	26,668	388,375
125	Hwy. 105—Red Lake	15,388	55,810
126	Hwy. 401—Hwy. 2 (London)	—	56,537
127	Maynooth—Hwy. 60 (E. of Whitney)	—	172,182
129	Thessalon—Chapleau	3,880,242	1,163,089
130	Port Arthur—Hwy. 61	—	54,465
132	Renfrew—Hwy. 41	—	156,582
133	Hwy. 33 (Millhaven)—Hwy. 401	—	42,753
134	Jct. Hwy. 7—Jct. Hwy. 28 (Lakefield)	—	67,934
135	Hwy. 401—Hwy. 2 (London)	4,318	31,231
136	Hwy. 24—Orangeville	—	83,455

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
137	Hwy. 401—Thousand Island Bridge	284	31,749
138	Cornwall—Monkland	7,270	214,911
140	Hwy. 3 (Port Colborne)—Hwy. 20	—	122,822
141	Hayes Corners Hwy. 69—Jct. Hwy. 11	4,487,095	249,988
144	Sudbury—Hwy. 101	2,306,551	1,466,747
169	Jct. Hwy. 12 to Jct. Hwy. 69	13,782	330,140
400	Toronto—Hwy. 12 (Coldwater)	11,488,432	2,807,666
401	(MCF) Quebec Border-Windsor	40,638,354	14,562,339
402	Hwy. 7—Blue Water	13,693,863	958,910
403	Burlington—Brantford	16,348,797	1,316,854
404	Toronto—Hwys. 7 & 12	7,671,019	235,377
405	QEW—International Br. (Queenston)	50,304	172,929
406	Hwys. 20-58—QEW	10,645,322	235,043
407	Jct. Hwy. 401 to Jct. Hwys. 35 & 115	10,727	—
409	Belfield Exway Hwy. 401—International Airport	4,667	415,354
410	Hwy. 401—Jct. Hwy. 7 & 10	1,845,337	182,466
416	Jct. Hwy. 2—Johnstown to Ottawa	148,146	—
417	Quebec Boundary—Ottawa	3,799,953	2,569,189
420	QEW—Rainbow Bridge (Niagara Falls)	68,819	108,457
427	QEW—Hwy. 401	12,840,400	6,459,990
451	(QEW) Toronto—Fort Erie	18,911,786	6,459,990
458	Ottawa Queensway	—	—
461	MacDonald Cartier Br. (Ottawa)	—	138,897
	TOTAL KING'S HIGHWAYS	309,562,400	114,229,468

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
500	Hwy. 41 (Denbigh)—Bancroft	166,250	—
502	Dryden—Hwy. 17	36,546	608,870
503	Tory Hill—Kirkfield	78,006	559,143
504	Hwy. 620—Apsley	—	114,024
505	Hwy. 46—Uphill	224,370	84,666
506	Plevna—Hwy. 41	2,341,371	151,884
507	Hwy. 28 (Lakefield)—Hwy. 503	80,144	272,908
508	Burnstown—Black Donald Mines	117,203	202,860
509	Hwy. 7—Snow Road Station	46,846	277,370
510	Magnetawan—Hwy. 124	—	13,374
511	Brightside—Hwy. 508	1,476,458	376,789
512	Eganville—Hwy. 60	1,466,739	210,678
513	Hwy. 132—E. of Hyndford	—	71,710
514	Hwy. 500—Hwy. 515	—	59,684
515	Hwy. 512—Combermere	512,801	200,881
517	Twp. Road (near New Carlow)—Hwy. 62	75	68,150
518	Sand Lake—Hwy. 69	434,408	396,331
519	Hwy. 121—Redstone Lake	2,337,179	65,776
520	Burk's Falls—Ardberg	63,232	265,005
522	Hwy. 11—West of Loring	5,272,331	548,264
523	Lyell Twp. Line—Hwy. 60	466,801	89,528
524	Hwy. 522—Hwy. 534 (E. of Restoule)	—	27,175
525	Gravenhurst Sanatorium Road	—	140,859
526	Hwy. 69—W. of Britt	—	94,896
527	Jct. Hwy. 11 & 17 Northerly	5,964,693	1,019,120
528	Wolseley Bay—Hwy. 64	813,718	183,548
528A	Pine Cove Landing—Hwy. 528	—	78,124
529	Hwy. 69—Hwy. 69 (Magnetawan River)	—	114,417
529A	Hwy. 529—Bayfield Wharf	71,678	54,688
530	Hwy. 519—Hwy. 35 (Carnarvon)	650	—

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
531	Bonfield—Hwy. 17	—	19,367
532	Hwy. 11 (S. of Bracebridge)—Hwy. 69	—	106,197
533	Mattawa—Hwy. 63	695,160	415,222
534	Powassan—Restoule	2,472,282	269,973
535	Hwy. 64—Riviere Veuve	15,982	280,701
537	Hwy. 69—Hwy. 17 (Wahnapiatae)	525	109,376
538	Algoma Miners Loop	—	38,886
539	Hwy. 64—Warren	44,187	320,418
539A	Hwy. 539—Tert. Road 805	18,325	44,496
540	Little Current—Meldrum Bay	1,043,776	675,341
540A	Hwy. 540—Barrie Island	88,830	58,049
540B	Manitoulin Island	—	32,902
542	Hwy. 68—Gore Bay	680,206	333,043
542A	Hwy. 542—Tehkummah	—	83,695
546	Hwy. 17—Mississagai Prov. Park	31,234	425,227
547	Hwy. 101—Hawk Jct.	—	27,299
548	Around St. Joseph Island—Hwy. 17	290,496	410,446
549	Lake Panache—Hwy. 17	111,731	54,688
550	Sault Ste Marie—Gross Cap	—	45,302
551	Province Bay—Hwy. 540	38,888	124,551
552	Hwy. 556—Twp. Road (E. of Hwy. 17)	988,131	93,226
553	Massey-Bull Lake Lodge	62,161	125,275
554	Hwy. 546—Hwy. 129	26,411	77,865
555	Magog Lake—Hwy. 557	92,045	96,690
556	Hwy. 17 (Heyden) N. Easterly	2,133,939	599,279
557	Blind River Northerly	392,449	121,980
558	Haileybury—Montreal River	77,291	128,912
559	Hwy. 69 Nobel—Hwy. 69	4,840	82,088
560	Hwy. 11—Hwy. 144 (S. of Gogama)	2,252,128	948,724
560A	Westree—Hwy. 560	—	42,587
561	Bruce Mines—Hwy. 638	—	125,549
562	Hwy. 11 (E. of Thornloe)—Hwy. 65	124,147	47,076
563	Batchawana—Hwy. 17	76,496	24,440
564	Blanche River Bridge—Hwy. 112	11,554	45,183
565	Pte Aux Pins—Hwy. 550	—	7,192
566	Matachenan—Ashley Mine	1,267,948	104,715
567	E. of Silver Centre—N. Cobalt	—	146,759
568	Hwy. 11—Kenogami	—	8,988
569	Hwy. 11—Hwy. 11 (S. of Englehart)	184,433	122,711
570	Sesekinoko—Hwy. 11	—	12,504
571	Hwy. 562—Earlton	61,388	25,460
572	Hwy. 11 Ramore—Hwy. 101	986,565	82,517
573	Charlton—Hwy. 11	—	85,757
574	Cochrane—Norembega	471,597	186,389
575	Jct. Hwy. 17—Jct. Hwy. 64	167,713	136,890
576	Hwy. 101—Kam-Kotia Mine	—	102,154
577	Hwy. 101—Iroquois Falls	10,927	117,555
578	Iroquois Falls—Hwy. 11	—	39,384
579	Cochrane—Gardiner	52,311	168,840
580	Hwy. 11—Lake Nipigon	160,092	50,958
581	Hwy. 11—Remi Lake	—	48,756
582	Hwy. 11 & 17—Loop at Hurkett	300	24,717
583	Mead—Lac Ste Therese	327,107	287,637
584	Hard Rock Mine—Nakina	3,283,071	361,103
585	Hwy. 11—Pine Portage	230,860	186,847
586	Hwy. 11—Lower Shebandowan Lake	—	22,237
587	Silver Islet—Hwy. 11 & 17	22,219	163,575
588	Stanley—Round Lake Road	47,932	430,457
589	Hwys. 11A & 17A—Dog Lake Road	153,256	220,826
590	Hwy. 130—Hwy. 588 (Nolalu)	12,755	106,310
591	Hwy. 589 Northerly	2,789	61,037
592	Hwy. 11 (Novar)—Hwy. 11	—	71,705
593	Hwy. 61—Hwy. 588 (Nolalu)	216,550	420,319

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
594	Dryden—Hwy. 17	1,122,408	122,831
595	Hwy. 597—Hwy. 590	107,280	170,252
596	Kenora—N. of Minaki	7,527,694	128,064
596A	Kenora	662,303	—
597	Pardee—Hwy. 608	15,167	141,313
598	Hwy. 604—Hwy. 128 (N. of Kenora)	—	15,057
599	Ignace—Tert. Road 808	18,439	1,154,169
600	Hwy. 71—Rainy River	119,300	528,230
601	Hwy. 17—Dryden	4,453	98,302
602	Fort Frances—Emo	—	146,963
603	Hwy. 17—Dymont	—	14,306
604	Hwy. 17—Kenora Airport	19,996	31,022
605	Hwy. 17—Eton—Rugby	35,128	44,462
607	Hwy. 69—(Big Wood—Hwy. 64)	—	74,412
607A	French River—Hwy. 607	—	24,873
608	Hwy. 61—Hwy. 595 (S. Gillies)	6,712	121,803
609	Hwy. 105—Clay Lake	—	53,085
610	Hwy. 67—Hwy. 101 (Hoyle)	87,166	94,807
611	Hwy. 602 (Sherwood) Northerly	—	109,001
612	Hwy. 103 (Mactier)—Hwy. 69	—	17,985
613	Hwy. 602—Lake Despair	933	129,236
614	Hwy. 17—Manitouwadge	—	265,831
615	Hwy. 17—Burditt Lake	—	84,160
616	Hwy. 101—Palomar	—	12,815
617	Hwy. 11 (Stratton)—Hwy. 600	62,792	105,495
618	Red Lake—Madsen	63,903	37,847
619	Hwy. 11 (Pinewood)—Hwy. 621	3,930	197,348
620	Hwy. 62—Hwy. 28 (Apsley)	9,680	180,837
620A	Hwy. 28—Hwy. 620	—	2,227
621	Hwy. 11—Lake of the Woods	225,233	206,254
622	Hwy. 11 (Atikokan) Northerly	—	83,649
623	Hwy. 11—Sapawe	361	19,309
624	Hwy. 11—Larder Lake	390,036	267,103
625	Caramat—Hwy. 11	—	115,474
626	Jct. Hwy. 17 to Marathon	1,337	17,246
627	Heron Bay—Hwy. 17	—	37,395
628	Red Rock—Hwys. 11 & 17	—	31,669
629	Timmins—Timmins Airport	16,312	40,314
630	Kiosk—Hwy. 17	—	197,080
631	Hwy. 17—Hwy. 11	4,298	787,438
632	Hwy. 118—Rosseau	—	48,422
633	Hwy. 11—Kawene	—	23,173
634	Smooth Rock Falls—Fraserdale	1,028,851	359,792
635	Hwy. 17—Ottawa River Bridge	—	13,301
636	Hwy. 11—Frederick House	—	23,227
637	Hwy. 69—Killarney	1,704,415	319,294
638	Dunns Valley—Echo Bay	126,955	221,872
639	Hwy. 108—Hwy. 546	8,433	109,376
640	Hwy. 571—Earlton Airport Entrance	—	12,355
641	Hwy. 17—Pellatt	37,219	70,178
642	Hwy. 599—Sioux Lookout	—	357,335
643	Hwy. 584—Twp. Road to Cavell	19,176	208,864
644	Hwy. 69 (Pte. Au Baril) Westerly	—	54,688
645	Hwy. 529—Bing Inlet	—	62,423
646	Pickle Crow—Central Patricia	—	59,871
			191,754
647	Hwy. 17—Blue Lake Prov. Park	—	70,179
648	Dyno Mine—West Jct. Hwy. 121	5,972	163,620
649	Bobcaygeon—Hwy. 121	852,818	78,581
650	O.N.R. Right-of-way—Hwy. 12	—	39,026
651	Hwy. 101—Missanabie	—	255,504
652	Wade Lake—Hwy. 574	10,997	85,140
653	Portage Due Fone Bridge Hwy. 17	—	30,449

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION \$	MAINTENANCE \$
654	Hwy. 11—Nipissing	—	209,913
655	Timmins—Ward Kidd Twp. Boundary	503,122	338,783
656	Hwy. 533 Northerly	186,498	21,541
657	Gold Pines—Hwy. 105	116,421	19,902
659	Hwy. 604—Hwy. 128	—	76,271
660	Bala—Hwy. 103	—	—
661	Gogama—Hwy. 144	—	22,260
663	Hwy. 11 (W. of Hearst) Northerly	—8,212	24,581
664	Hudson—Hwy. 72	200	52,971
665	Hwy. 17—Richan	—	73,560
666	Kenora—Redditt	98,121	117,815
667	Hwy. 129—Sutton	—	165,307
TOTAL SECONDARY HIGHWAYS		56,680,635	26,288,312

HIGHWAY NUMBER	LOCATION	CONSTRUCTION \$	MAINTENANCE \$
TERTIARY ROADS			
800	Hwy. 11 & 17 N. of Whistle Lake	—	320
801	Hwy. 11—Namewanian River	—	64,781
802	Hwy. 11—Burchell Lake	—	47,029
803	Hwy. 575—(Hwy. 101-3 mile South)	—	15,470
804	Hwy. 105 (lower Manitou Falls)	—	29,956
805	Hwy. 539A (River Valley) — Pond Lake	—	109,041
808	Hwy. 646—Otosilwin River	—	232,683
809	Hwy. 564—End of Highway	—	16,747
810	Hwy. 553—Richie Falls	—	176,293
811	Tertiary Road 800 northwesterly	—	237,514
812	Manitou Road-Hwy. 11 northerly	47,495	—
813	Riding Stable Access Road	400	—
TOTAL TERTIARY ROADS		47,895	929,834
ACCESS, INDUSTRIAL & ARTERIAL ROADS			
708	Marchington Lake Road	533,999	97,693
709	Anaconda Road	—	14,805
751	Arterial Road—Jane St. S'ly to S. Queens Drive	271,640	—
758	N. of Hwy. 17 to Armstrong/Hurkett	—	—
760	Detour Lake Access Road	16,704,528	—
771	Kodak Access Road	948,303	—
773	Garden Lake Road	—	88,862
784	Arterial Road—Lawrence Ave. S'ly to Trethewey Drive	2,208	—
785	Bending Lake Access Road	1,812,392	—
792	Hwy. 17—Dubreaulville Townsite	—	59,578
795	Sherman Mine Road	—	2,199
799	Caramat—Manitouwadje Road	—	76,680
TOTAL ACCESS, INDUSTRIAL & ARTERIAL ROADS		20,273,070	339,817
UNINCORPORATED TOWNSHIPS			
2	Indian Reserves	114,581	207,049
7	Special Settlers	276,890	95,823
9	Local Roads Boards	1,649,126	4,519,155
99	Statute Labour Boards	178,648	133,257
TOTAL UNINCORPORATED TOWNSHIPS		2,219,245	4,955,284
SPECIAL PROGRAMS			
450	Other Ferry Services	—	3,300,225
704	Welland Canal Tunnel	7,820	—
731	Sudbury By-Pass	7,197	—
735	Kitchener Waterloo Expressway	571,141	383,656
762	Welland Canal Tunnel	—	48,006

HIGHWAY NUMBER	LOCATION	CONSTRUCTION \$	MAINTENANCE \$
SPECIAL PROGRAMS			
765	Townline Road Tunnel	—	22,959
797	Airstrip Development	4,220,183	2,263,766
952	Sidewalks	95,015	—
955	Commuter Rail Service	16,688	—
7087	E.C. Row Expressway	7,752,469	350,417
7118	Brantford Expressway	72,488	21,915
7180	E. Metro Transportation Corridor	—	—
7182	Woodstock By-Pass	173,337	—
7222	Caradoc Side Road 20	253,906	—
8905	Lands & Buildings	4,156,352	2,487,767
8954	Weigh Scales	11,370	328,806
	Development Roads	8,098,442	—
	Connecting Links	15,343,986	1,914,576
	TOTAL SPECIAL PROGRAMS	40,780,394	11,122,093
HIGHWAY TOTALS			
	Sundry Unallocated, District		
	Office Administration, Engineering		
	Buildings, Inventory Charges, etc.	(80,319,719)	34,358,324
	TOTAL EXPENDITURE	349,243,920	192,223,132

MTC ANNUAL REPORT

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ANNUAL REPORT

1983 ~ 1984



Ministry of
Transportation and
Communications

Annual Report 1983-1984

for the
fiscal year
ending
March 31, 1984



Ontario

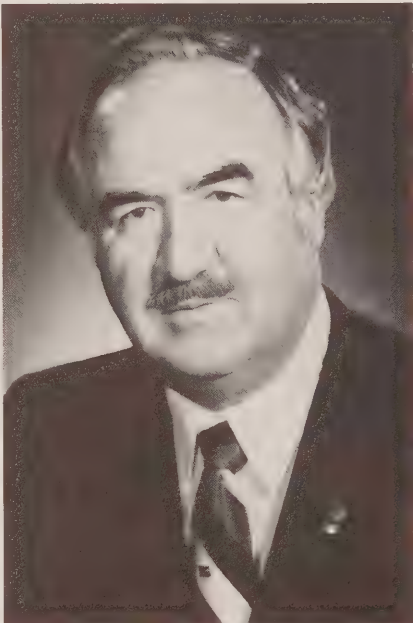
Ministry of
Transportation and
Communications

To: The Honourable John B. Aird,
O.C., Q.C., L.L.D.
Lieutenant-Governor of the Province of Ontario

MAY IT PLEASE YOUR HONOUR:

The undersigned takes pleasure in laying before
you the Annual Report for the Ministry of
Transportation and Communications for the fiscal
year ending March 31, 1984.

Respectfully submitted,

A large, stylized handwritten signature in dark ink, which appears to read "James Snow". The signature is fluid and cursive, with a long, sweeping tail that extends to the right.

James Snow
Minister

To: The Honourable James Snow
Minister of
Transportation and Communications

Sir:

I have the honour to present the report of the
activities of the Ministry of Transportation and
Communications for the fiscal year ending March
31, 1984

Respectfully submitted,

Harold Gilbert



Harold Gilbert
Deputy Minister

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Deputy Minister's Summary

I'm happy to be able to report that MTC employees have successfully met a number of challenges during the past year and continued to provide a high level of service to Ontario's public.

And I must comment that it took successful ministry-wide dedication to achieve our collective goals.

Highways

Highlight of the 1983-84 construction program was the award of the largest dollar-volume contract ever tendered by the ministry for the twinning of the Burlington Bay Skyway. Work on the \$38 million project began during the year and completion is slated for fall of 1985.

Total expenditures for highway and freeway construction amounted to \$217,213,740 with an additional \$204,452,582 spent on construction of municipal roads.

MTC continued to emphasize maintenance of the infrastructure with a total of \$200,457,919 allocated to maintenance of the King's Highway network. Construction or repair work was completed on some 868 km of highway and new work was done on 129 bridges.

As part of the government's industrial expansion program, MTC received \$25 million in BILD funds for major highway projects in southern Ontario's Golden Horseshoe. An additional \$9 million was provided for job creation in road construction.

Major freeway projects begun during the year included: the widening and improving of the QEW in the Burlington/Hamilton corridor; the widening of Highway 401 west from Highway 427 to Highway 403 and the 403 south from Highway 401; construction on Highway 410/Brampton Bypass and on Highway 417, the Ottawa Queensway.

Work continued on Windsor's four-lane E.C. Row Expressway; Highway 406 in St. Catharines; and Highway 404 to Newmarket. Contracts were awarded for the widening of Highway 135/15 from Highway 2 to Taunton Rd. and the twinning of 6.9 km of Highway 7 from the Queensway easterly to Highway 7B. And plans were underway to provide a four-lane limited access highway along Highway 35/115.

In northern Ontario, the first link of the Kenora Bypass was officially opened and work completed in four-laning the Thunder Bay Expressway from Oliver Rd. to Balsam St. Also, the reconstruction of Highway 11/17 was completed between Thunder Bay and Kakabeka Falls.

Construction continued on the upgrading of Highway 400 between Highway 11 and Coldwater and improvements to Highway 11 four-laning the Callander Bypass.

Transportation Programs

Improved productivity and efficiency in public transit was the focus during the fiscal year with operational subsidies to municipalities totalling \$111,261,680. Large capital expenditures on the Ottawa busway and the Scarborough rapid transit line resulted in capital assistance to the tune of \$149,541,354 — more than doubling last year's expenditure. Also, a total of \$16,915,000 in BILD funds was provided under the job creation program.

Planning for the new GO-ALRT inter-regional transit system linking Hamilton and Oshawa began, with approval given to the first extension from Pickering to Oshawa and studies were undertaken to designate a right-of-way for the remainder of the routes. The system will use advanced light rail transit technology developed by UTDC while design specifications for the vehicles, guideways and stations were started during the year.

During 1983-84, a total of 69 municipal transit systems received financial assistance, with municipalities introducing new major rapid transit facilities receiving special subsidies for the initial years of operation.

Continued progress was made on construction of the 7.2 km intermediate capacity transit system (ICTS) in Scarborough while the first section of the Ottawa-Carleton exclusive busway was opened with a significant portion operational in 1984.

Large capital expenditures, such as a bus garage in Metro Toronto, a bus terminal in Sault Ste. Marie and a maintenance facility on Hamilton's mountain will result in more efficient fleet maintenance and storage.

And a new subsidy policy for the provision of transportation for the physically disabled will promote more productive and cost-efficient services.

The Intercity Transportation Guide was produced during the year, in conjunction with the ministries of Northern Affairs and Energy, providing a useful guide to provincial public transportation modes.

Ontario's Urban Transportation Development Corporation (UTDC) made great strides in using the most advanced technology to produce highly efficient and marketable light rapid transit vehicles.

Highlights included a successful

demonstration ride on a section of Vancouver's ALRT system, using UTDC vehicles; the signing of a \$28.9 million (U.S.) contract to provide 30 ALRT vehicles for San Jose, California, to be built in Thunder Bay; and completion of the first ALRT vehicle in October of '83 for use on the Scarborough line.

Air Services

During the year, two new remote airports were officially opened at Deer Lake and at Sachigo Lake, ending the seasonal isolation of the residents. Construction of Kasabonika Airport was slated for completion in 1984 and work began on remote airports at Cat Lake and Muskrat Dam. There are now 19 remote airports across the north, built and maintained with MTC funds, with capital funding from MNA.

MTC also assisted in the planning, design and operation of municipal airports, subsidizing 46 municipalities with funds supplemented through the BILD program.

The air office continued its role of monitoring the level of air passenger services in Ontario, assessing air carriers' applications to the Canadian Transport Commission (CTC) and responding when appropriate.

Staff continued their involvement in implementing the Ministry of Health's system of medical emergency heliports at Ontario hospitals.

Development of an air system flight planner for Ontario, listed on Teleguide, was also initiated.

Marine Services

Marine and pipeline office staff fulfilled their mandate to advance Ontario's position on issues related to marine transportation in a number of ways.

Staff maintained contacts with provincial, federal, private and international organizations, preparing policy advice and responses on issues affecting Ontario.

Key programs and activities recommended in the Great Lakes/Seaway Task Force report were implemented during the year. A major project was the celebration of the 25th anniversary of the St. Lawrence Seaway, launching a three-year public information and promotion program to increase awareness of the system and its significance to the economy and the people of Ontario. A seaway anniversary logo was adopted as the international symbol. As well, the film "Inward Passage" promoting the marine system, was seen by approximately 50,000 visitors to Ontario Place.

Rail Services

An important development during the year was the initiation of a joint federal/provincial study of the transportation needs of northern Ontario communities now served by VIA Rail.

Staff attended CTC regulatory hearings on behalf of the province on the potential abandonment of CN's Meaford, Pagwa and Smiths Falls subdivisions.

As well, they attended hearings on the potential discontinuance of passenger service between Thunder Bay and Sioux Lookout and between Hearst and Nakina.

Rail office staff also continued investigation of acquiring abandoned rail corridors, either for MTC or other government agencies, to protect viable future corridors.

Communication

Staff made a number of significant representations before the CRTC in Ottawa on a host of telecommunications and cable/broadcast matters, including satellite utilization, Pay TV and local radio stations.

Policy positions were submitted to the federal Department of Communications on issues such as the national broadcast strategy, microwave licensing policy, broadcast distribution technologies and copyright reform.

As well, increased effort was undertaken in support of Ontario's communications industries through initiatives such as the development of a policy paper in support of the communications manufacturers and suppliers industries; production of a report on business opportunities for cable in the 1980's and 90's, and, implementation of a pilot project using Telidon technology in an aviation weather briefing system.

Research

Research and development was undertaken in a wide range of areas, focused on improving the highway system, with special emphasis on developing improved technologies for the repair and rehabilitation of pavements and bridges.

Pavement management system guidelines were prepared and distributed and research on the effects of truck weights and dimensions on pavement was undertaken.

A much-improved second edition of the Ontario Highway Bridge Design Code was published and structural office staff made a major contribution in preparing design criteria for transit structures, with emphasis on the GO-ALRT system.

Transportation technology and energy activities supported and promoted Ontario's transportation-related technology and energy research.

Major activities included technical expertise and assistance provided to UTDC to develop transportation systems for domestic and export markets and assistance in development of teleconferencing products and services.

Control and information systems staff conducted research in transport control and information systems with particular emphasis on the application of advanced technology, notably the use of fibre optics technology for freeway traffic management systems.

Trucks and Buses

A focus on safety and regulatory reform in the trucking industry resulted in the tabling of two major reports during the year. The Ontario Commission on Truck Safety, chaired by Dr. Robert Uffen, submitted its report in April of 1983. Sixty-one recommendations were made and action has been taken on over half of them in an effort to improve truck safety in the province.

And in June of 1983, the Public Commercial Vehicles Act Review Committee completed its task of developing new principles by which to regulate Ontario's trucking industry in its report, *Responsible Trucking*. It emphasized effective goods transportation and fair and equitable competition. The implementation of reforms is expected to take place over two years.

Drivers and Vehicles

The new Plate-to-Owner vehicle registration system, in place since December of 1982, demonstrated its advantages during the fiscal year 1983-84. These included staggered renewals keyed to the vehicle-owner's birth date, virtually eliminating once-a-year line-ups; quick replacement of vehicle permits by agents, and the more efficient updating and retrieval of

information re vehicle permits and driver licences.

A major reorganization during the year was the relocation of production operations staff from Queen's Park and Downsview to Kingston in April of 1983, a move which was done expeditiously and with the least possible disruption in service.

Another service to the public was the provision of own-choice plates, allowing individuals to compose their own combinations of letters and numbers.

Supporting MTC's highway safety objectives, a broad range of activities were undertaken, including a preliminary evaluation of the probationary driver licence program which was found to have a positive impact on reducing violations and accidents among newly-licensed drivers; development of a new motorcycle operator's manual and changes to motorcycle licensing procedures in an effort to reduce accidents and injuries in this high-risk group; investigation and initial development of a photo driver licence delivery system, to be implemented in 1986; participation in devising strategies to deal with the problem of drinking drivers.

Highlighting changes to the HTA were: stop-arms required on all school buses; the second phase of the child restraint legislation; and off-road vehicle regulations.

Ministry contributions to Ontario's bicentennial celebrations included publication of *Footpaths to Freeways*, a mini-history of transportation in Ontario; the renaming of Highway 33 to the Loyalist Parkway and construction of a limestone and wrought iron gateway on Highway 33 just west of Collins Bay in honour of the arrival of the United Empire Loyalists; the creation of a Bicentennial mobile trailer show which operated out of some 25-30 Ontario fairs.

The following is a summary of expenditures reported by the financial comptroller for the fiscal year 1983-84, with comparative figures for the preceding year:

Fiscal Year Ending		
	March 31, 1983	March 31, 1984
Ministry Administration	\$ 39,014,427	\$ 38,847,162
Policy Planning & Research	10,474,416	10,350,650
Safety & Regulation	66,997,237	78,372,494
Provincial Highways	540,186,767	516,228,314
Provincial Transit	97,554,400	103,748,919
Provincial Transportation	6,453,109	7,463,225
Municipal Roads	483,705,656	504,623,981
Municipal Transit	198,967,992	279,318,355
Communications	2,172,149	2,437,596
Total Gross Expenditure	\$1,445,526,153	\$1,541,390,696



Affirmative Action Program

The Affirmative Action Program's mandate is to raise the level and diversify the occupational distribution of women in MTC.

AAP staff coordinated MTC's affirmative action plan and activities. Emphasis was placed on accelerated career development initiatives to increase the number of women qualified to compete for jobs in under-represented areas.

In these and other initiatives, staff worked with MTC managers who annually plan and report on their affirmative action initiatives.

1983-84 Affirmative Action accomplishments:

- 77 developmental assignments completed under the accelerated career development program;
- A Ministry Affirmative Action Incentive Fund approved by the Resources Management Committee; 22 developmental assignments initiated through this Fund;
- Computer Application Training Program offered for four Ministry women to receive 6 — 8 months formal and on-the-job training to qualify them for systems-related positions;

- Annual career development interviews with female staff conducted in most areas;
- 144 career and work-related counselling sessions conducted with female staff;
- Affirmative Action Coordinators established in all program areas. RMC approved defined roles and responsibilities to assist managers in coordinating their affirmative action commitments;
- Regional visits to discuss affirmative action issues with managers and provide information sessions and career counselling for female staff;
- Members of the Government Affirmative Action Council and task forces that addressed corporate policy issues such as day care, accelerated career development and the impact of technology in the workplace;
- Affirmative Action Conference held for approximately 70 unit representatives and council members;
- Technical assistance provided for the affirmative action network representatives in carrying out their roles and responsibilities;
- Information on career planning and women's issues developed and distributed to female staff.

Internal Audit Branch

During the year branch staff made a positive change from the traditional role of audit. The old rule had emphasized the surprise audit and a detailed accountability for financial matters; the new approach was more comprehensive: To identify and communicate areas of potential management weakness by reviewing current systems and processes. This won't eliminate financial, attest and compliance audits, but responsibility for the accuracy of the audit will belong to the manager. The knowledge that adequate management controls and systems are in place should reduce the need for the detailed audits previously conducted.

Engineering Systems Audit Office

Staff in five regional offices and head office addressed the requirements of the expanded role of audit by conducting six systems-oriented audits of both pre- and post-award engineering functions, remote airport facilities, engineering claims and utilities. As well, audits dealing with

compliance and the value-for-money aspects of construction activities were initiated throughout the province. Three special investigations and studies were completed, in addition to 12 audits of contractors' records.

Senior staff provided and conducted in-house training programs for the development of audit staff and updated audit programs and methods.

Financial and Management Audit

Unit staff was responsible for conducting comprehensive audits within MTC, the Ministry of Northern Affairs and related crown agencies reporting to both ministers.

Audits concluded during the year were conducted in the Communications Division, Central Region, including Toronto (District 6) and Port Hope (District 7). In addition, a number of investigations were conducted in cooperation with the OPP. A few suspected or alleged irregularities were also investigated.

Major audits included the drivers system, a selection of driver examination centres and vehicle licensing offices throughout the province and a review of the ministry's Recoverable and Revenue System.

EDP Audit Office

Under the continued guidance of the long-term EDP audit plan, new computer systems were developed, old ones enhanced and reviews undertaken.

The status of the implementation of various task forces recommendations relating to the maintenance management system was reviewed. An interim report on the Operations Management Systems (OMS) was generated and a joint review on a special assignment was performed with operational audit on an internal control aspect of the driver's system. A post implementation review in data security involving the software package, Resource Access Control Facility (RACF) was initiated toward the end of the fiscal year. A follow-up to EDP audit's earlier review was undertaken on the Canadian Agreement on Vehicle Reciprocity (CAVR).

In addition, staff continued to review and comment on the development of new systems: Driver Study Research Project (DSRP), Workers Compensation Board (WCB); and the enhancement of the Direct Deposit System.

EDP Audit staff also provided technical support services to the Branch on an ongoing basis.

Quality Control Office

Office personnel responsibilities included audit methodology, "state of the art" awareness, staff development, planning and follow-up on audit recommendations. MTC staff have close liaison with the audit staff of other ministries, the Ontario Public Service Internal Audit Council, external consultants, the staff development section and such organizations as the Canadian Comprehensive Audit Foundation and the Civil Service Commission. Quality control staff reviewed reports to ensure they were complete, concise, constructive, objective, timely, fair, logical and easy to read.

Quality control staff conducted six in-house seminars on audit report writing and 30 auditors attended an "effective presentations" seminar.



Linda Hoffman (l) director of MIB with Marg Kelch, executive director, highway operations and maintenance at Senior Management Conference.

Strategic Policy Secretariat

Secretariat staff supported the deputy minister and Strategic Policy Committee (SPC) and its sub-committees to ensure the effective, ongoing operation of the ministry's strategic management process: to undertake corporate studies and assignments and provide information and advice on the current and future external environment.

It has two major functions. One is responsible for the basic operations of the strategic management process and the other is the outlooks office, responsible for monitoring the external environment for social, economic, political, and technological developments that may have future implications for provincial transportation and communications.

Policy Secretariat

Staff was involved in the management of the business of SPC, participated in SPC sub-committees, provided support to the resources management committee, and liaised with central agencies, other ministries, associations and the public in co-ordinating ministry responses and providing information and advice on a

range of issues such as customer services, the bicentennial, regulatory reform and privatization.

Meetings were organized involving senior management and external delegations. As well, key steps in the process such as the SPC Think-In, Program Position and Prospects presentations and regional outlooks, and the annual senior management conference were organized and co-ordinated.

A new and revised "Strategic Directions 1984" publication was prepared to provide an overview of the ministry's strategic style of management and the strategies that have been formulated to deal with the outlooks and emerging issues affecting transportation and communications. Secretariat staff attended seminars and kept abreast of strategic planning developments in other agencies and were involved in a number of initiatives to improve and refine the strategic management process in the ministry.

Outlooks Office

The office developed the deputy minister's conference on public policy issues and a number of seminars and meetings with SPC and senior people from the public and private sectors on a variety of topics including high technology, economic development, deregulation and federal-provincial relations.

Presentations were made to SPC on a range of social and economic issues and scenarios, and the outlooks report was developed and used in formulating the strategic directions.

A ministry-wide policy on surveys of the public was developed and a system was initiated for co-ordinating program surveys, including the publication of an index of ministry surveys conducted over the past decade.

Terms of reference for increasing staff participation in the strategic planning process were developed and approval was given to pilot-test an approach. Consulting information and advice was provided to other MTC offices as well as to a number of Ontario government ministries, and outlooks liaised with planners and researchers in business, academia, and other agencies.



MTC safety display at Ontario Place.

Public and Safety Information Branch

Branch staff played an integral role in MTC's overall communications function, including liaison with the news media — radio, TV and print.

More than six million pieces of safety-related information materials were produced and distributed during the fiscal year, including brochures, pamphlets, booklets, posters and periodicals such as the Driver's Handbook and Motorcycle Driver's Manual.

Staff also produced safety curriculum materials for all Ontario public and separate schools and high school driver courses in secondary schools.

As well, branch personnel produced the Ontario Traffic Safety Bulletin; the monthly publications, MTC News, Working Together, an affirmative action newsletter and Responsible Trucking.

Information officers were also involved in the in-house production of radio and TV commercials; A/V

scripts; display advertising for newspapers and magazines.

During the year, audio-visual staff produced two films and three commercials in addition to MTC's annual "Ontario on the Move" film.

Films included the 23-minute Trucksave Edge, a fuel economy promotion and Segmental Bridge — Spanning Twelve Mile Creek, which chronicled the first structure of this type built in Ontario. Staff also produced snowplow, Drivesave and drinking and driving commercials.

Section personnel maintained an audio-visual library of traffic safety films and video tapes for distribution to schools, police and the public.

The A/V section produced 34,000 black and white photographs, 46,000 colour slides and duplicates and 175 portraits.

Information officers researched and wrote 90 speeches for the minister, deputy minister and edited others for

senior staff. Production of news releases, both general and contract, totalled 370.

Other responsibilities included the organization of official functions for the minister, including news conferences, municipal airport openings and highway/freeway opening ceremonies.

Displays included MTC's annual CNE exhibit, a thermographic display at Ontario Place and displays at the Canadian Lakehead Exhibition, the Western Fair in London and Ottawa's Central Canada Exhibition.

MTC's safety caravan visited 16 Ontario communities during the spring, summer and fall of 1983.

During the year, information staff answered more than 140,000 telephone requests for up-to-date road information, 121,000 requests for general information and replied by mail to another 1,325 enquiries.

Management Improvement Branch

Branch staff continued to provide the focus for the ministry's initiatives in the identification and introduction of management and organizational improvements. Emphasis and activities remained at a high level to contend with the continuing challenges of managing in tight economic conditions and a changing environment. To this end the introduction of the voluntary retirement option was a specific item requiring particular consideration within the ministry.

Staff also extended their efforts in providing consultative service and assistance to managers throughout the ministry.

Activities during the year are highlighted below:

As follow-up to the recommendations made in the branch's review of the ministry's Internal Audit Branch, staff participated in the orderly transfer and integration of reassigned line functions to their respective head office or regional offices.

A comprehensive review of the

Management Employee Group was completed and recommendations covering its continued existence, objectives, organization and general administration were accepted by senior management. Several have been implemented and plans have been initiated for the remainder.

A major study was initiated to review the ministry's regional and district financial administrative process. Within this review, current and developing business practices regarding system automation, inter-faces, etc., were to be identified and their potential application evaluated.

In consideration of the changes occurring in the ministry's programs and their operations, the deputy minister requested review of the supply and services component. The objective was to ensure that the products and services provided by this support element continued to be appropriately aligned to present and anticipated conditions.

A review of the ministry's overall

publishing process and its organizational arrangements was undertaken and recommendations developed for consideration by senior management.

A task force recommended an implementation plan for two incentive award programs in the ministry. The VIP program (valuable individual performer) and IDEA\$ program were designed to encourage and provide recognition for excellence in work performance, innovation and creativity.

At the request of the deputy minister of Northern Affairs, staff reviewed the organization of financial and administrative services in its two regions and made recommendations for consolidating and strengthening the functions.

As a result of a review of the ministry's management processes (in relation to the management standards project), this branch began work on developing a plan of improvement for operational planning.

Office of Legal Services

This office provides legal services to the minister and MTC staff. Legal officers are members of the Ministry of the Attorney General's staff seconded to MTC and located at head office and in each of the regions except Thunder Bay.

Staff provide legal advice on all aspects of the ministry's programs and prepare legal documentation through which such programs are carried out, e.g. ministry contracts, claims, property acquisitions and disposals.

The office advises on legislation affecting the ministry and prepares and recommends amendments to the statutes administered by MTC.

Legal office counsel provide ministry representations before administrative boards and tribunals with which MTC comes in contact and conducts prosecutions for offences under the Ministry's statutes, e.g. The Highway Traffic Act and Public Vehicles Act.

Claims Office

Staff initiates claims on behalf of MTC against third parties for damage to Crown property arising from accidents on the King's Highway; investigates and resolves, frequently by negotiation, claims made against MTC (and, in some cases, the provincial

government) arising from a variety of circumstances, such as:

- accidents involving provincial government vehicles
- accidents resulting in injuries to government employees, while on duty by the action of a third party
- accidents arising from alleged lack of maintenance to the King's Highway
- accidents or emergencies on the King's Highway necessitating the presence of municipal fire departments
- accidents or damages to third parties as a result of highway construction work
- damage or flooding to third party property arising from alleged improper drainage
- depletion of rural well water supplies or pollution of wells allegedly from highway construction work, winter road maintenance or sand/salt storage facilities
- damage to private residences allegedly attributed to vibration from construction work or dynamite blasting
- crop damage claims said to have been caused by weed spraying operations
- spraying of automobiles or private property during mulching operations or highway zone-stripe painting and

— claims arising from incorrect computer information emanating from the Drivers and Vehicles Branch.

The handling of such claims entailed obtaining detailed reports from regional and district offices, from police, where applicable and field investigations where necessary.

With regard to accidents involving provincial government vehicles, the staff handled such matters not only for MTC but the entire Ontario Government with the exception of the Ontario Provincial Police.

Staff instituted claims against the public for damage to Crown property such as bridges, light standards, guide rails, etc., and where necessary, arranged for legal action to be taken against responsible parties through the Ministry of the Attorney General.

Communications



The activities of this division addressed the main objectives of ensuring that users of communications services have access to a reasonable choice of services at fair prices; promoted efficiency and effectiveness in the communications network and contributed to Ontario's economic growth through the development and use of the communications network.

Staff representations were made to the federal regulatory body, the Canadian Radio-television and Telecommunications Commission on the following issues:

- Teleset rate application for 14/12 GHz, representing a new range of telecommunications services;
 - Policy involved in the provision of enhanced services through the use of common carrier facilities;
 - Master Antenna Television Systems (MATV) calling for deregulation of MATV;
 - Introduction of new TV specialty services;
 - Canadian content regulation promoting new audience-based approach to regulating Canadian content on TV; and,
 - Pay TV regulation promoting a market competitive approach to this new industry.
- Policy positions were submitted to the federal Department of Communications (DOC) concerning the following issues:
- Federal Bill C-20, an omnibus Communications Bill which will amend the Bell Canada Reorgani-
 - zation Act, the CRTC Act, the Broadcasting Act and the Canadian Film Development Corporation Act;
 - FM Radio policy promoting reduced regulation of private FM radio;
 - Radio broadcasting in Canada wherein Ontario proposed means of maintaining the local character and commercial viability of radio despite increasing competition and new technologies;
 - Direct broadcast satellite forwarding results of a major study of the potential of DBS and method of service delivery;
 - Microwave licensing policy commenting on the licensing of private microwave systems;
 - Responding to DOC's national broadcast strategy which incorporated many of Ontario's views;
 - Promotion of new broadcast distribution technologies and successfully getting DOC to call for applications for multi-point distribution systems to deliver pay-TV services in non-cable areas;
 - Provided comments on the introduction of cellular mobile services; and,
 - Copyright reform in relation to cable and satellite transmission of broadcast signals.

Increased effort was undertaken in support of Ontario's communications industries and during the past fiscal year the following activities were pursued:

- Development of a policy paper as a

basis for support of the communications manufacturers and suppliers industries;

- Development of a statistical information matrix to monitor industrial performance in the communications sector;
- contact with several companies to identify opportunities for support and assistance;
- Initiation of a campaign to increase the awareness of the cable industry, the federal government and the public on the capability of cable to provide network services; and,
- Production of a report on business opportunities for cable in the 1980's and 1990's.

Other major initiatives included:

- Finalizing of an amendment to the Telephone Act which was passed by the Legislature in December 1983;
- Implementation of a pilot project employing Telidon technology in an aviation weather briefing system;
- Continuing coordination of the Ontario government's requirements for the mobile satellite experimental project;
- Provision of emergency diesel generator replacements in Fort Severn to provide power for telecommunications in remote northern Ontario;
- Promotion of the development of a fibre optic broadband local area network;

Provincial / Municipal Transportation



Municipal Transportation Division

Staff managed the ministry's municipal transfer payment programs which assisted municipalities in the development and operation of their transit systems and construction, rehabilitation and maintenance of their road systems.

Personnel also provided guidance and expertise to municipal authorities in identifying their transit and road needs and developed a fair and equitable distribution of the subsidy funds made available by the legislature. They also carried out verification procedures to ensure that legislative and policy requirements were met.

The division was supported in the managing and monitoring of the ministry's municipal roads subsidy program by the staff of the regions and districts.

Municipal Roads Office

Staff of the municipal roads office were responsible for program planning, policy development and evaluation and the overall administration of all municipal road subsidy programs.

Municipal Roads Programs

During the 1983-84 fiscal year, road grants were provided to 843 municipalities and 40 Indian reserves under the Public Transportation and Highway Improvement Act.

In support of the province's energy conservation program, funds were also provided to Metro Toronto, the regions of Durham, Peel and Waterloo and to cities of Brantford and Mississauga for development and implementation of computerized traffic signal systems to improve the traffic flow. In addition, 41 municipalities received subsidy for the installation of traffic signals.

Funds were provided, under agreement, toward the operating deficits of seven municipal ferry services.

The distribution is shown below:

Highway Connecting Link Program

There were 896 km of municipal roads covered by connecting link agreements. MTC funded 108 agreements with a total expenditure of \$19,419,685. An additional \$2,094,436 was spent on maintenance activities in towns, villages and townships.

Development Road Program

Development road work are municipal projects which would ordinarily place a financial burden on municipalities. MTC subsidizes these projects under agreements with each municipality up to 100 per cent of the total cost.

These roads remain under the jurisdiction of the municipalities with work done either on a day labor basis or by contract. There were 20 projects during the year resulting in an expenditure of \$5,382,137.

Transit Office

Staff were responsible for transit program policy development and evaluation, administration of municipal transit financial assistance programs, development and management of operational improvement and demonstration projects, and carrying out or assisting in planning for municipal and provincial transit system improvements.

A total of 69 municipalities with municipal transit service received financial assistance in accordance with the transit operating assistance policy which provided a subsidy to cover 50 per cent of the theoretical net cost calculated on the basis of a target revenue/cost (R/C) ratio established for each municipality.

Also, additional subsidy up to a limiting amount was provided to those municipalities falling short of their target R/C ratio. Municipalities experiencing an above-normal population growth also received additional subsidy.

As well, municipalities introducing a new major rapid transit facility, were eligible to receive special subsidy for the initial years of operation. Agreements were developed for such undertakings on an individual basis, incorporating municipal initiatives related to coordinated land use, transportation policies, and detailing the operating subsidy terms.

Capital funds were also provided to municipalities at the rate of 75 per cent of expenditures associated with the acquisition of surface capital items and rapid transit construction.

Construction on the 7.2 km intermediate capacity transit system (ICTS) along the Scarborough corridor began in 1982. The system used new transit technology developed by UTDC. It will run from Kennedy-Eglinton subway station northerly to Scarborough Town Centre terminal with four stations between.

A small section of the region of Ottawa-Carleton exclusive busway was opened. A significant portion should be operational in 1984 with a total of 86 lane km and 26 stations completed by 1990.

The TTC Malvern 250-bus satellite garage was opened at a total cost of \$14.3 million. This facility will service the northeast area of Metro Toronto, resulting in a more efficient system for fleet maintenance and storage.

The Hamilton Street Railway Mountain heavy maintenance facility was opened in 1983, accommodating 250 vehicles at a total cost of \$13.8 million. The Sault Ste. Marie downtown bus terminal also opened and provided off-street parking for 14 buses. Total cost was \$310 thousand.

A program to provide financial assistance to municipalities for the provision of transportation for physically disabled persons underwent a comprehensive review in order to assess the past and future program trends in service level, utilization and financial requirement, and identify the longer term issues surrounding the program. A new subsidy policy was developed for 1984 implementation to promote productive and cost-efficient services.

Financial and technical assistance to municipalities undertaking transit studies continued. Operational studies of existing transit services were completed in Kenora and Brampton. The Hamilton Transit Study, which was the most comprehensive review ever undertaken of a large transit system, was nearly completed with only the physical plan and the review of Canada Coach Lines to be finalized.

A joint Ontario Urban Transit Association (OUTA) MTC committee developed a set of "transit performance review guidelines" designed to assist the transit industry to evaluate their systems. The document was introduced to the industry at a seminar and several properties have started to use them.

The Ontario urban transit fact book, which provided a summary of the operating characteristics, and results measurements of Ontario's municipal transit systems was issued in an improved format.

The development and implementation of a computerized reservation, scheduling and dispatching system for transportation services of physically disabled persons in Metro Toronto was underway.

The province's articulated bus demonstration project was at the end of the first of three years' operational testing in Toronto, Ottawa, Hamilton



and Mississauga. Performance to date of the 53 coaches developed and manufactured by the diesel division of General Motors (Canada) Ltd. exhibited positive results.

For articulated bus routes in the Region of Ottawa-Carleton, a demonstration project to assess the feasibility of an "honor fare" system was underway.

The demonstration project to test the operational viability and performance of an articulated light rail vehicle (ALRV) developed by UTDC neared completion in Metro Toronto.

The transit information, communication and control system (TICCS) project to develop and implement computer-based products to satisfy the

information, communications and control needs of transit properties proceeded, satisfactorily. The first year of work saw the documentation of requirements and specifications for most of the TICCS products and installation of several passenger information and vehicle radio communications packages.

Payment Verification Office

Office staff (formerly working out of the municipal audit section of the internal audit branch) were transferred to the municipal transportation division in January of 1983.

Personnel were engaged in the auditing of municipalities throughout the province, dealing with MTC

subsidized road, transit and municipal airport expenditures.

This function was extended to cover specific programs concerning expressways, connecting links, development roads and special agreements.

During the fiscal year, audits were also carried out on behalf of the Ministry of Northern Affairs (MNA) in connection with their transfer payment program to municipalities and unincorporated areas.

Major project audits were performed on the expenditures incurred by the Urban Transportation Development Corporation (UTDC) and various consultants on behalf of the development of light rail transit technology and other transit related programs.

Transportation Technology and Energy Branch

TT&E staff actively supported and promoted Ontario's transportation-related technology and energy activities. For example, personnel provided technical expertise and assistance to the Urban Transportation Development Corporation (UTDC) to develop transportation systems for domestic and export markets. They also assisted in the development of teleconferencing products and services to allow for travel substitution.

Industry and Technology Office

Staff coordinated branch efforts in support of the ministry's contribution to economic growth in Ontario and Canada, particularly in the transportation sector.

Emphasis was placed on understanding transportation market demands and identifying opportunities for technology transfer into new products and services. ITO personnel

sought new technological solutions to meet existing needs and enhanced the capability of Ontario's transportation-related industries.

Staff also established and maintained a network with public and private agencies responsible for market intelligence and international trade development. They coordinated a delegation from Saudi Arabia that came to examine Ontario's urban and rail transportation systems. Further to the minister's signing of a memorandum of understanding with Saudi Arabia, preparations were underway to assign technical advisors and take a transportation-related trade mission to that country.

Human and Social Factors Office

This office provided research support and professional advice on social and behavioral issues to clients within MTC and other ministries. This has been

extended to other Ontario agencies which deal with transportation and communications services in Ontario.

Staff continued development of a new driver education course for use in Ontario high schools. They were also responsible for evaluating the probationary licensing program and conducting an overview of driver improvement countermeasures. Other projects included the effectiveness of parallel noise barriers; the development of criteria for the evaluation of highway information systems; and a presentation to the Canadian Urban Transit Association on human factors of concern in transit operations.

Vehicle Systems Office

This office was responsible for research in the areas of urban transit, commercial vehicles, and automotive energy.



Urban Transit

Staff continued to work closely with the Toronto Transit Commission (TTC), Ontario Northland Railway (ONR), OC Transpo, and the private sector to improve the performance and cost-effectiveness of transportation systems. They provided technical expertise to GO-ALRT to assist in defining the vehicle and in choosing an optimum propulsion system. Staff also prepared a report for GO-ALRT on the merits of automating cleaning service and maintenance.

Staff participated with other ministry and government agencies in the rotary and floating frame truck programs and analysis was underway to determine the dynamic performance of both these trucks. Modified derivatives are being considered for GO-ALRT applications.

Assistance and technical expertise were given to:

- UTDC in the areas of LIM motors and the transporter project;
- the municipal transportation division in its implementation of the Scarborough ICTS project;
- the transit office and several Ontario transit properties in the testing and evaluation of articulated buses; and,
- the ONR and the Ministry of Northern Affairs in their assessment of the applicability of bi-level vehicles for use on northern routes.

Commercial Vehicle

Staff conducted extensive testing on truck tires, braking systems performance, modes of vehicle instability and computer simulation of heavy commercial vehicles.

Ongoing projects included development of a mobile truck tire

dynamometer and road testing of three basic types of truck tires to compare their characteristics when subjected to the stresses of braking and turning on wet pavement. Staff also constructed a truck air brake simulator for experimentation and demonstration of component behaviour and overall brake system performance.

This group developed computer simulations and conducted tests to better understand the performance and handling characteristics of heavy truck train combinations for both engineering and safety purposes. A computer system was purchased and installed for automatic on-site data capture and processing.

Through RTAC and in association with NRC, University of Michigan and Transport Canada, the group prepared for the vehicle dynamics test portion of a major weights and dimensions program designed to standardize aspects of commercial vehicle legislation across Canada.

Automotive Energy

Through research done in cooperation with various universities and the private sector, this group continued to support TEMP's efforts to promote the utilization of propane, natural gas and methanol as alternatives to gasoline and diesel fuels. Research development and demonstrations were conducted on engines, conversion equipment, fuelling systems, fuels, oils and additives.

Projects included:

- Diesel substitution by propane pursued on two fronts. This group participated in the evaluation and acceptance testing of a propane bus at OC Transpo. A propane truck project with the Ontario Research

Foundation continued with the conversion of a commercial diesel engine to propane fuel;

- Compressed natural gas (CNG) demonstrations by Consumers' Gas and Union Gas produced valuable operating data with vehicle fleets and fuelling stations operating under Ontario conditions. The University of Toronto and MTC completed a series of CNG conversion equipment evaluations with a Ford six-cylinder spark-ignition engine; and RMC identified a promising natural gas absorption media which could lead to the adoption of low-pressure CNG storage;
- The examination of methanol as a fuel substitute for gasoline continued. The MTC/Suncor/AGC methanol blend demonstration continued to show the acceptability of properly tailored methanol gasoline blends in MTC fleet vehicles. An MTC/Shell/Ford project identified some suitable straight methanol formulations for use in factory-modified vehicles. Work at RMC was in progress to examine the cold-starting performance of a methanol engine under controlled laboratory conditions.

Control and Information Systems Office

Staff supported and conducted research and development in transport control and information systems with particular emphasis on the application of advanced technology. During the past year, they were responsible for:

- Assessing and promoting the application of fibre optics communication technology for freeway traffic management (FTM) systems;



- Research and development of video pattern recognition, with emphasis on the development of a foreign object identification system for application on an automated rail transit system (GO-ALRT);
- Provided technical support in the control and communications areas to major ministry programs including GO-ALRT, the FTM projects on Highway 401, QEW, Burlington Skyway and the Ottawa Queensway and the transit information communications and control systems (TICCS) project.
- A brief state-of-the-art review of the new field of artificial intelligence as it related to transportation systems and ministry operations.

Transportation Energy Management Program (TEMP)

The TEMP program, a joint venture with the Ministry of Energy, was engaged in reducing Ontario's dependence on petroleum fuels in transportation through initiatives in two main areas: development of alternative transportation fuels and the marketing of energy management measures.

Alternative Transportation Fuels

ATF staff conducted and co-ordinated an extensive program of research and demonstrations of alternatives to conventional oil-based transportation fuels. Following investigation of barriers facing the

development and use of alternative fuels, the section was active in three main areas: basic research of the utilization properties of these fuels, the development of the technologies of fuels usage, and the demonstration of actual fuel use in vehicles.

Basic Research

- Research was done at Royal Military College in Kingston to improve the storage and refuelling of compressed natural gas.
- Conducted investigations into the cold start properties of methanol/gasoline fuel.
- Concluded research undertaken with Shell Canada into the components of an optimum fuel additive for methanol fuels.

Technology Development

- Concluded extensive testing and evaluation of propane and natural gas fuel systems.
- Converted a large diesel-type engine to operate on propane at the Ontario Research Foundation.
- Initiated a methanol heavy-engine development and testing program.
- Installed and evaluated a propane-powered transit bus engine in an OC Transpo bus.

Fuel Demonstrations and Testing

- Concluded a fleet demonstration of 22 natural gas powered vehicles at Consumers' Gas.
- Completed a demonstration of methanol/gasoline blended fuel, using 40 MTC fleet vehicles. This

demonstration was conducted in cooperation with Sunoco and Alberta Gas Chemical Co.

- Carried out a demonstration of neat methanol fuel use in 16 vehicles with Ford and Shell Canada.
- Initiated a demonstration of propane fuelled bus operations at Ottawa-Carleton Transpo.

Marketing

Staff worked with industry, municipalities and the general public to disseminate information and promote adoption of fuel-saving measures, technologies and the use of available alternative fuels, through seven subprograms:

Drivesave: Conservation and energy efficiency measures were promoted to the general public and automobile fleets through seminars, displays and the distribution of information and promotion material. During this past year, over 2.5 million pieces of fuel economy information were distributed in Ontario.

Specific activities included a special seminar on propane vehicles, attended by 200 fleet managers, held in cooperation with "drive propane" and the National Association of Fleet Administrators.

In addition to this successful seminar for the fleet industry, drive propane ensured that its relationship with the Propane Gas Association of Canada continued to expand. Staff was involved with the development of a new propane vehicle inspection program, which will be administered by MTC.



A new film on truck driving techniques called "The Trucksave Edge" was produced "in-house" with assistance from industry and the trucksave fleet advisory committee. This film was shown across Canada and has been extremely well received.

The 1983 Fuel Economy Challenge was successful and industry donated over \$10,000 in prizes.

A number of fleets and owner-operators were using trucksave fuel conservation techniques, such as those described in a new audio/visual presentation directed at mechanics, called "Maintenance for Fuel Economy."

The Share-A-Ride program promoted vanpooling and carpooling with the objectives of saving fuel and reducing road congestion. Associated benefits of ridesharing included lower costs for employers through reduced parking demand and lower absenteeism. Individuals enjoyed the benefits of reduced commuting costs and release from the stress of driving.

The program was responsible for the creation of 350 employer- and owner-operated vanpools and 650 carpools. An additional 1,100 carpools were attributed to the 35 carpool parking lots in the province.

An estimated 33 per cent of Ontario's fuel consumption occurred in transportation systems under municipal control or influence.

The municipal transportation energy management group worked closely with municipalities to provide technical assistance and educational material to ensure that municipalities were able to capitalize on opportunities to save fuel.

Staff continued the distribution of a quarterly newsletter. Over 400 copies of the transportation energy analysis manual were also distributed to Ontario municipalities with a population of 5,000 or more.

More than 100 fleet operators took advantage of a municipal driver training program made available by this office in the form of a 16 mm film and 35 mm slide presentation.

Government FleetSave: A reporting, coordinating and monitoring structure was formed, involving energy coordinators from all government ministries and agencies, to make available information on transportation energy management.

To promote increased use of teleconferencing more than 5,000 brochures and reports were distributed and 10 articles published, internationally. Presentations and training sessions were attended by over 600 people. Organizations using teleconferencing reported as much as 30 per cent of travel had been replaced and the level of satisfaction was high. Teleconference 83, a two-day symposium sponsored by TEMP was attended by over 250 people from industry, government, health and education.

Technology Services Office

Staff provided support to other offices in the branch, the ministry and private sector for transportation-related research and the publishing of research results.

Experimental Testing Group

This group provided quality testing facilities including research and large-scale test laboratories, a mobile research laboratory and a commercial vehicle testing facility, unique in Canada. It included a digitally-controlled chassis dynamometer designed to test light-vehicle exhaust emissions, fuel economy and alternative fuels.

In addition to vehicle testing, bridges were instrumented on behalf of the structural research group and the data collected, recorded, digitized and submitted for analysis. A GO bi-level car was tested for ride comfort on the Ontario Northland Railway, to assist ONR in specifications for their own new bi-level cars.

Technical Publishing Group

Personnel provided editorial, graphics and word processing services, and was responsible for a variety of published items ranging from bumper stickers to newsletters, to research reports. Over 150 items were published, including the two-volume set of the Ontario Highway Bridge Design Code, the first of its type in North America. Text extracted from the bridge code, and information transmitted by computer from Seattle, was used to prepare design criteria for the building of GO-ALRT guideways.

Staff also coordinated the production of displays and pamphlets for TEMP and assisted in the production of a new film, The Trucksave Edge.

Policy Planning Branch

Over the year, the staff of the four offices have become fully established in their respective roles in support of the MTC policy development process. The following is a summary of the achievements and specific activities which also serves to illustrate the linkages between the Branch's function and various sectors and interests both within and outside the ministry.

Intercity Transportation Policy Office

Personnel worked to strengthen the ministry's position in matters of intercity passenger transportation by proposing policy direction through policy research and analysis and by assisting the suppliers and users of the transportation system in Ontario. These efforts focussed on:

- The development of a provincial public transportation policy which addresses the best interests of the carrier companies and the travelling public;
- Organizing a task force to recommend policy direction on automobile use and the ministry's relationship with the auto industry;
- Completing the processing and analysis of a multi-modal passenger survey to provide travel information for policy development and marketing initiatives;
- Policy analysis projects in northern mobility, rural route abandonment, nuclear emergency evacuation planning and support for the carrier industry;
- Liaison with industry and municipal participants at potential intermodal terminal locations; and,
- Publication and distribution of the first edition of the Ontario Intercity Guide to Public Transportation.

Goods Distribution Systems Office

During the last year, staff developed specific activities in line with current strategic directions and supported the achievements of ministry objectives.

Directed toward improving the effectiveness and efficiency of the goods transportation/distribution system and thus support productivity improvement in the manufacturing and service sectors, the five major program elements

- Provided advisory service to small Ontario export oriented shippers to resolve their transportation/distribution problems;
- Explored opportunities to expand Ontario's role as a North American

transportation hub for international goods movements;

- Promoted the establishment of a comprehensive, computerized transportation pricing/routing/service data information system for Ontario/Canadian shippers and carriers;
- Promoted Ontario interests related to federal legislative changes, e.g. Crow; and,
- Interacted with modal offices to formulate policy related to intermodal issues.

Transportation Demand Forecasting Office

Staff made concerted efforts with other ministry offices and municipalities to accomplish the following activities:

- Promoted the application of more transparent and flexible transportation demand forecasting techniques by sponsoring training courses for staff and workshops and seminars for municipalities;
- Developed long-range demand forecasts for GO ALRT based on different scenarios;
- Conducted a province-wide commercial vehicle survey on highways;
- Updated highway demand forecasts for four of the five planning regions; and
- Recommended a number of initiatives to increase the efficiency of data collection and management.

Urban Transportation Policy Office

During the past fiscal year, staff successfully shaped and supported the following significant achievements:

- Met the strategic ministry requirements in other major urban areas of the province outside the Greater Toronto Area by completing an overview of 10 cities and regions. This overview covered growth trends, identified transportation problems, issues and opportunities and developed strategies for improvement and/or capturing the potential values of the transportation opportunities;
- Completed a position paper and an implementation plan for the co-ordination of the 13 transit operating agencies in the Greater Toronto Area;
- Supported and maintained closer liaison with Metro Toronto and the Regions of Durham, York, Peel, Halton and Hamilton-Wentworth staff in the development of growth trends and the identification of

potential policy issues;

- Completed strategy review of Toronto central waterfront transportation requirements and multi-modal terminals for the Greater Toronto Area; and,
- Supported the co-ordination and preparation of the strategic directions for the ministry's municipal transportation program.

External Relations

MTC's wide range of contacts with transportation agencies of other governments and the transportation industry were coordinated through the office of the Coordinator of External Relations.

Staff assisted in development and administration of transportation policy and helped ensure such contacts reflect the views of the government.

Of major significance were attempts to achieve suitable recognition for provincially-operated commuter rail services and efforts to obtain a federal government commitment to establish a funding assistance program to replace the expiring Urban Transportation Assistance Program.

Other issues included obstruction zoning in the vicinity of airports and the federal domestic air carrier policy.

Rail Office

Staff was responsible for co-ordinating Ontario's interests in all rail-related activities, promoting and assisting in development of a suitable provincial rail transportation system for both passengers and freight. They were also involved in a large number of programs such as: branch line rationalization; review of the level and quality of passenger services; regulatory activities; freight issues; promotion of intermodal services and service development; and safety issues.

An important development was the initiation of a joint federal/provincial study of the transportation needs of communities presently served by VIA Rail in Northern Ontario. Sponsored by MTC and Transport Canada with MNA and VIA Rail, Manitoba also participated.

Staff attended CTC regulatory hearings on behalf of the government on the potential abandonment of CN's Meaford, Pagwa and Smiths Falls subdivisions. There were also a number of outstanding abandonment applications investigated, including CN's Marmora, Campbellford, Dunnville and Fergus subdivisions as well as CP's M&O subdivision.

Staff continued investigation of



acquiring abandoned rail corridors either for MTC, or other government agencies, to protect viable future corridors.

The rail plan was compiled to first draft stage prior to external consultation. This will involve the rationalization of branch lines and the analysis of corridor options.

Staff also attended CTC regulatory hearings on the potential discontinuance of passenger service between Thunder Bay and Sioux Lookout and between Hearst and Nakina.

Personnel were heavily involved in such other passenger-related issues as the continuing intensive work in the Quebec City/Windsor corridor. Extended and detailed discussions continued with VIA to encourage and shape the nature of possible corridor improvements to passenger rail services.

Ontario also participated in: a task force on commuter rail legislation; Thunder Bay rail issues task force; and the railway cost of capital study and submission.

Staff participated in a group of committees to define policy and implementation of projects affecting public transportation modes, including the rail, bus and intermodal committees. They also represented Ontario on VIA's regional advisory council.

Personnel continued to be involved in rail safety issues, transportation of dangerous goods, rail and road crossings, plus regulatory issues such as inter-switching limits, Section 279 of Railway Act and impact of the Staggers Act; CTC jurisdiction over private

sidings; commuter and passenger rail legislation; freight rate issues; and, railway operations technology.

Air Office

Staff was responsible for policy and program development of air transportation in Ontario. The activities of the office were divided into three broad sub-groups: remote airport development; municipal airport assistance; and, air transportation influence.

The remote airport development program consisted of the development and maintenance of a system of public airports in remote areas of northern Ontario. Construction and maintenance of such was the responsibility of the ministry's Northwestern Region. Capital funding was through MNA and maintenance funding through MTC.

Air office staff was responsible for the development of policy and standards, preparation of multi-year programs and monitoring of current programs. The system now includes 19 operating airports with two more under construction.

Staff of the municipal airport assistance program assisted municipalities in developing and maintaining a system of airports to facilitate the movement of people and goods and support economic development. Presently, it covers the entire geographical area of the province.

Staff also assisted municipalities in planning, designing and operation of their airports and entered into agreements with them for requested subsidies towards construction projects and maintenance expenditures. The subsidy program, supplemented by funds made available through BILD, was made available to 46 municipalities.

A major and ongoing staff function was the monitoring of the level of air passenger services in Ontario. This involved, in part, an assessment of air carriers' applications for new and improved air services submitted to the Canadian Transport Commission (CTC), the federal agency responsible for licensing and regulating commercial air service activities.

The Government of Ontario agreed to purchase two new de Havilland Dash 8 aircraft for use in the northern system.

The following special policy issues continued to be addressed during the past year:

- urged the federal government to resolve jurisdictional complexities related to airport zoning and airport land use development;
- to implement a public air navigational system in northern Ontario;
- to develop an air carrier policy which simplifies regulatory procedures, provides airline flexibility and encourages competition;
- encouraged the development of a distinctive air carrier for regional air services in Ontario;
- promoted Toronto as a gateway centre for international air passenger



and cargo services in order to enhance trade and tourist opportunities for Ontario; and, — monitored and reacted to federal government initiatives with respect to airport licensing policies and airport regulations.

Personnel were involved in implementing the Ministry of Health's system of medical emergency heliports.

The actual construction of each heliport was the responsibility of the hospital authority. They continued to develop standards and provide assistance and guidance related to site selection and licensing procedures.

Staff also initiated the development of an air system flight planner for Ontario — flight schedules of local and regional air carriers operating within

Ontario listed in the Teleguide system. They also installed a computer terminal enabling them to access information related to airline schedules and other aviation related data. And they continued to issue the Ontario Airport Facilities map, intended to provide information to users as to the location of all significant Ontario airports and the facilities that exist at each location.

Marine and Pipeline Office

Staff maintained contacts with provincial, federal, private and international organizations. Appropriate policy advice was developed on issues related to marine transportation; issues related to pipeline bulk carrying opportunities as a transportation option were addressed.

Major programs and activities recommended in the January 1981 Great Lakes/Seaway Task Force Report were underway.

The Ontario ports study held six public meetings across the province. Interested agencies reviewed the preliminary findings of the study and additional input was invited. An inventory of all port facilities was documented.

Personnel undertook a leadership and coordination role in increasing public awareness of the Great Lakes/Seaway System and its significance to the economy and standard of living of the people of Ontario. A three to five-year public information and promotion program has developed for implementation in 1984 to coincide with the 25th Anniversary of the St. Lawrence Seaway. A Seaway anniversary logo was created and subsequently adopted as the international symbol for the anniversary.

Staff also coordinated activities with marine-related associations, industries and other jurisdictions to ensure a

widespread anniversary program in Ontario.

A triple-screen, 35 mm film on the Great Lakes/Seaway System entitled "Inward Passage" shown at the Discovery Theatre, Ontario Place, was seen by approximately 50,000 people.

A commercial promotion study undertaken jointly with the Ontario International Corporation resulted in 20 recommendations. And to make trade development information more available to Ontario ports, activities were underway to simplify port costs, to produce an overall system brochure and develop a computerized transportation information system for the marine mode.

GO-ALRT Program



The GO-ALRT program was established by the Ontario Government to provide improved transit service to the municipal regions between Hamilton and Oshawa. With two tiers of routes totalling over 200 km, one on the lakeshore and a second running north from the lakeshore to connect with the Brampton/Mississauga City Centre area, Pearson International Airport, North York City Centre and Scarborough City Centre, the service will use transit technology being developed by UTDC. The program is a combined endeavour of MTC and GO Transit; ultimately the system operator will be GO Transit.

Approval for implementation was given to the first extension from Pickering to Oshawa, together with the initiation of planning studies to designate a right-of-way for the remainder of the routes in the overall system.

Route Sections

During 1983/84 route alignment and preliminary design studies were completed for the Pickering to Oshawa section, and the selected route was endorsed by the municipalities concerned. Detailed design is underway for several sub-sections, and construction on a 6.5 km "test-track" section started in the spring of 1984.

While the Oakville to Hamilton route was designated and endorsed by councils concerned in Oakville and Burlington, alternatives were still being considered for the route into Hamilton. Preliminary design was completed for almost all of the Oakville and Burlington projects, and detailed design initiated in 1983/84 on parts of them.

The designation of rights-of-way for a GO-ALRT route on the lakeshore between Oakville and Pickering, and the North Metro section were in the planning stages. A CN study of the existing railway system through downtown Toronto concluded that sufficient capacity could be added to the present GO Transit commuter rail service to accommodate ridership projections to the mid-nineties.

Operational Service Planning

Ridership studies completed by MTC's Policy Planning Branch during 1983/84 indicated a high level of use of the proposed GO-ALRT routes in the long term. Daily usage of some route sections was expected to be in the vicinity of 140,000 passengers per day in the next 35-40 years, with forecast loads of about 20,000 passengers in the peak direction of flow in the morning rush hour on the most heavily used sections.

Management for Implementation

Technical committees of officials drawn from the municipalities and other agencies (such as the railways) potentially affected in a major way by the program were established and actively involved in directing and contributing to the various studies, together with GO Transit, MTC and GO-ALRT officials.

A senior management team was put in place in 1983/84 to oversee the development of the program, drawn from MTC and GO Transit and supplemented by the resources of the private sector. This team directs Metro Canada Ltd. (UTDC's subsidiary for

delivery of this type of program), consultants, suppliers and contractors.

Vehicle Technology

The original concept for the GO-ALRT vehicle was modified in 1983/84 to be more compatible with TTC's needs. The new rolling stock will consist of cars 36 metres long, permanently coupled together in the middle to form a "married pair" of two 18-metre sections with a walkway between them. They will feature 124 seats per car, a normal cruising speed of 120 km/h, with power supplied by an overhead wire. The vehicles will ride on "steerable" trucks to minimize squealing on curves, and the entire system will be controlled automatically by computers.

An electrification voltage study was completed and a 25,000-volt a.c. system selected for the power supply. Concept studies were initiated for the overhead power design, as were electro-magnetic interference studies for other transmission and communications facilities located in the vicinity of GO-ALRT routes.

Fixed Facilities

Development of design standards for the guideways and stations was started during the year. MTC's structural office completed a major study of alternative designs for the elevated sections of guideways, resulting in selection of three basic standard cross-sections to be applied as local circumstances dictate. A study determined that at-grade guideway sections should be constructed by conventional concrete ties-and-ballast, except in areas where the higher cost continuous concrete slab is justified.

PROVINCIAL HIGHWAYS



Central Region

Construction

The twinning of the Burlington Skyway was begun with the award of the largest "dollar value" contract ever tendered by the ministry. It was for the construction of a bridge over the Burlington channel that will ultimately serve as the southbound lanes of the QEW. The structure will have a five-lane cross-section and be 2.2 kilometres in length. Four design options were included in the contract package with the selected design being structural steel on the approach spans and balanced cantilever cast-in-place segmental concrete construction on the main spans. Completion is anticipated in the fall of 1985 and approximately 30 per cent of the work was completed in 1983.

The widening and improving of the QEW in the Burlington/Hamilton corridor continued with the award of contracts at Highway 2 and Freeman Road.

Preliminary structure contracts for the widening of Highway 401, westerly from Highway 427 to Highway 403 and Highway 403, southerly from Highway 401, were completed, and contracts to finish this section were awarded which, when completed in the summer of 1985, will include a collector-distributor system on the Highway 401 westerly to the Highway 403 interchange.

Construction continued on Highway 406 in the St. Catharines area; Highway 410 in Brampton, and

Highway 417 north of Rexdale Blvd. Highway 401 east of Toronto saw the completion of a new interchange at Whites Rd. and the improvement of the interchange at Thickson Rd.

A contract for the widening of Highway 135/15 from Highway 2 northerly to Taunton Rd. was awarded as was a contract in Peterborough from the Queensway to Highway 7B.

The ongoing bridge deck rehabilitation and resurfacing plan for the Toronto by-pass portion of Highway 401 as well as Highway 427 and QEW continued as did the construction of noise barriers along the freeways.

Engineering and Right-of-Way

A total of 41 projects were designed and cleared for contract advertising, covering all types of highway improvements.

Particular emphasis was placed on the design of major freeway projects including the completion of design of Highway 406 in the St. Catharines area, ongoing design of Highway 410 in the Brampton area and design completion of Highway 401/403 collector-distributor system between L.B. Pearson International Airport and Cawthra Rd. in Mississauga.

Designs were also completed for regional bridge deck rehabilitation and sound barrier construction.

Municipal

Staff was responsible for managing the municipal road programs, including overall budget control for the subsidy,

King's Highway connecting link, and development road programs.

During the year, 115 municipalities and six Indian Reserves received regular subsidies under the Public Transportation and Highway Improvement Act.

Staff administered a connecting link program involving 40 construction projects with a provincial contribution of \$4,348,161 and \$367,006 for maintenance in towns and villages.

The development road program consisted of two projects with a provincial expenditure of \$516,147.

In addition, office staff administered the 1983/84 municipal job creation program valued in excess of \$3.3 million.

Maintenance

As of March 31, 1984, our highway network had grown by approximately 63 two-lane kilometres to a total of approximately 5,108.

Personnel carried out hot-mix patching in Hamilton, Toronto and Port Hope districts for a total of 50,344 tonnes.

In winter maintenance approximately 275,000 tonnes of sand and 151,000 tonnes of salt were used.

On Toronto district freeways, emergency patrols continued to operate, driving approximately 861,000 kilometres, providing assistance to 27,200 motorists, and dispensing a total of 9,660 litres of fuel.



Roads and Bridge Sections	Road Kilometres	Approved Expenditure	Subsidy Paid
1. Metro Toronto	732.6	49,019,800	22,939,300
2. Regions	3,550.6	75,729,700	42,737,100
3. Counties	1,463.5	12,656,100	9,198,400
4. Township and Indian Reserves	8,544.6	31,182,400	16,556,700
5. Urban Municipalities	15,931.8	229,804,900	98,463,200
Total	30,223.1	\$398,392,900	\$189,894,700

Drivers & Vehicles

Driver examination and driver improvement staff conducted 252,384 pre-test examinations and 187,970 road tests for driver's licence applicants. As well, 419,915 temporary driver's licences were issued. The driver improvement counsellors conducted 16,528 demerit point interviews, 142 medical hearings, 148 accident repeater interviews, and 102 medical waiver hearings which resulted in 968 driver's licence suspensions.

Licence issuing offices located in Toronto, Oshawa and Hamilton dealt with 388,616 transactions.

Vehicle inspection staff checked 24,871 commercial motor vehicles both at truck inspection stations and carrier terminals. Of these, 5,853 vehicles were detained, removed from service or tagged unfit. A total of 35,179 cars and light trucks were inspected at either permanent or portable lanes and 2,067 vehicles removed from service. Approximately 2,826 school purpose vehicles and 1,616 commercial buses were also inspected while 9,497 audits of motor

vehicle inspection stations were conducted.

Eastern Region

Construction

Completion of two grading and granular base contracts on New Highway 16 from 2 km north of the Rideau River northerly 12.9 km prepared this section for paving to be carried out in 1984.

Resurfacing of the eastbound lane of Highway 401 from Highway 41 easterly 33.1 km to Highway 38 was completed in October, 1983.

Reconstruction of Highway 28 from 8.9 km west of Denbigh westerly 8.7 km was completed in October.

Reconstruction or resurfacing was carried out on Highways 2, 7, 17, 28, 31, 34, 62, 127, 138, 401, 417, 506, 507, 511 and 648.

Engineering and Right-of-Way

Seventeen capital construction projects were prepared for contract award in 1983. An additional 20

miscellaneous projects were also processed by office staff.

The recommended alignment for future Highway 416, resulting from the major study of the Highway 16 corridor, was endorsed by the Regional Municipality of Ottawa-Carleton (RMOC) Council and the ministry proceeded, with the submission to the Ministry of the Environment for approval under the Environmental Assessment Act.

A study of the Ottawa Queensway and St. Laurent Blvd. interchange was completed and a major redesign developed to compliment the Ottawa-Carleton Transitway construction. A joint (MTC/RMOC) study of a parallel street proposal between Rochester and Nicholas Streets on the Ottawa Queensway was well underway. And an Ottawa Queensway freeway management study was co-ordinated with the former and reached the conceptual approvals stage.

Maintenance

Major winter activities consisted of 1,566,857 kilometres of snowplowing, 108,574 tonnes of salt and 84,166 cubic metres of sand spreading.

Summer maintenance activities covered 4,388 kilometres of centre line and 4,001 kilometres of edge line painting. Some 11,676 trees and shrubs were planted, and 2,847 hectares of brush and weeds sprayed; 850 dead and dangerous trees were removed, and 23 hectares were seeded. Six traffic signal installations were erected and five updated. One overhead flasher was installed. Fourteen luminaires were also erected.

Two ferry services were operated, Glenora (with 19,798 trips transporting 261,344 vehicles) and Wolfe Island (with 6,595 trips transporting 322,099 vehicles).

The districts issued 641 building permits while 1,362 field advertising signs and 500 guide signs were processed.

Municipal

A total of \$95,522,900 in subsidies were paid to regions, counties, townships, urban municipalities and Indian Reserves. In addition \$2,940,113 was spent under connecting link agreements, and development roads received \$1,874,022.

Provincial contributions were also made to: ferries — \$885,421, and traffic signals — \$348,200.

Drivers and Vehicles

Through the fiscal year, driver examination staff conducted 94,841 pre-examinations and 46,102 road tests for driver licence applicants. Driver improvement counsellors held 3,192 demerit point interviews, 82 hearings and 28 accident repeaters.

Vehicle inspection staff performed 2,621 motor vehicle inspection station audits, inspected 5,044 commercial motor vehicles, 3,302 school buses and 293 other types of buses. Mini portable lane activities included the inspection of 3,068 vehicles of which 545 had serious defects.

Regional highway carrier personnel, despite continuing constraints, inspected 226,496 vehicles at truck inspection stations and designated area patrols.

Regional investigation and prosecution staff completed 45 compliance audits and 549 investigations of unlicensed trucking operations.

The conversion to a fully automated vehicle registration system caused, in the beginning, numerous complaints from the public because of technical difficulties during the first few months of operation. As the year progressed, MTC issuing offices and licence issuing agents became much more proficient in the use of the system and complaints reduced to a minimum. Both ministry offices situated in Kingston and Ottawa completed 169,985 transactions.

Southwestern Region



Construction

Major contracts awarded in Southwestern Region included 10.6 km of grading, four structures and a new patrol yard on Highway 403 between Brant County Road 25 and Oxford County Road No. 14; reconstruction of 3.0 km of Highway 11 which included a new interchange at Highway 169 and the installation of a median barrier.

Also, work continued on the widening of Highway 400 between Barrie and Waubesa with the construction of a further 4.8 km of King's Highway plus two structures and service roads.

Resurfacing contracts were awarded on Highways 22 and 7 (19.0 km), Highway 2 (14.1 km), Highway 11 and Highway 88 (17.4 km). A further contract was awarded for resurfacing and widening on Highway 7 from Stratford easterly for 6.0 km.

In keeping with the ministry's program of structural maintenance, contracts were awarded for the replacement of the Black Creek structure in Oil Springs; rehabilitation of four structures on the Kitchener/Waterloo Expressway; three structures on Highway 19 at Vienna; the interchange structure at Highways 88 and 400; the interchange structure at Highways 77 and 401.

A contract was also awarded for the construction of a new weigh scale, building and truck inspection station to replace the existing station on Highway 401 in the vicinity of Putnam Road.

Municipal

A total of \$126,221,780 in subsidies was paid to counties, regions, cities, towns, villages, townships and Indian Reserves in the region.

Approximately \$5,560,000 was expended on 41 connecting link projects and \$151,000 for a single development road project. In addition, \$3,862,700 was provided to fund 52 job creation projects.

Maintenance

In addition to routine summer maintenance, staff replaced cable guide rail with steel beam guide rail at 10 interchanges along Highway 401: routing and sealing cracks in asphalt pavement was carried out extensively, three sand storage domes were erected and a new six-bay patrol garage was constructed at Warwick patrol yard.

The building retrofit program was continued with oil to gas conversions, infrared heating systems, insulated garage doors and upgrading insulation projects carried out.

An unusually heavy winter was experienced during the year with expenditures being approximately 20 per cent higher than normal, providing a good basis for our one-person operated plow trials.

Drivers and Vehicles

Staff conducted 73,579 road tests for driver's licence applicants, down 14 per cent from last year; and 107,982 pre-



examinations were conducted, a drop of 13 per cent. As well, 38,717 replacement driver's licences were issued. Driver improvement counsellors conducted 8,468 demerit point interviews.

Vehicle inspection staff performed safety inspections on 7,022 commercial motor vehicles both at truck inspection stations and carrier terminals. Also, 2,694 school-purpose vehicles were inspected, along with 676 commercial buses. A total of 5,981 cars and light trucks were inspected at mini-lanes. These inspections resulted in 650 vehicles having plates removed. Additionally, 5,937 audits of motor vehicle inspection stations were performed.

Staff inspected 869,061 commercial motor vehicles, resulting in 8,254 convictions.

As a new initiative, selected highway carrier officers concentrated their efforts toward public vehicles in a pilot bus surveillance/compliance program. As a result, 1,951 commercial buses were inspected, resulting in 51 convictions.

Northern Region

Construction

Major construction work continued on Hwy. 11, four-laning the Callander Bypass.

Construction also continued on Hwy. 144 new (Northwest Bypass), Hwy. 535, Hagar southerly and Hwy. 63 at North Bay easterly. Work was completed on Hwys. 549 at Whitefish; 69B at Parry Sound; Hwy. 66 Matachewan easterly; Hwy. 522 at Trout Creek westerly; and Hwy. 637 west of 69.

Paving and recycled paving was completed on Hwy. 101 at the Quebec boundary westerly; Hwy. 17 at Hwy. 108 easterly; Hwy. 17 at North Bay easterly; Hwy. 11 at North Bay northerly; Hwy. 11 at Latchford southerly; and paving continued on Hwy. 69 at French River, northerly.

Structure rehabilitation work was completed on Highways 11 (Hearst area 2 structures), Hwy. 11 West of Hwy. 631 (Pagwa), Hwy. 169 Bala and Hwy. 69 Moon River.

Structure work was completed on Hwys. 540, 17 and structure work continued on Hwy. 11 at Crooked Creek Bridge.

Construction was completed on the last two grading contracts, which complete the construction of the Detour Lake Access Road.

Maintenance

Summer work was carried out on some 5,750 km of King's secondary and tertiary highways. Two ferries were

operated at Moosonee and Gardiner. In addition to routine maintenance operations, projects for gravelling, priming, surface treating, mulching, crack sealing and asphalt patching were completed.

Winter maintenance was carried out on most of this mileage while privatization of the garage operation repair area was continued. Snowplowing, using private plowing units, was increased to 18 plows. Two new patrol garages and a sand dome were built this year.

Municipal

During the year, staff administered various road assistance programs amounting to \$41,500,000 to 132 organized municipalities (i.e. one county, two regions, three cities, 35 towns, seven villages, 81 townships, three improvement districts) plus 21 Indian Reserves. Also administered was \$2,200,000 for 16 projects on highway connecting links, and another \$2,600,000 for development road assistance.

In addition to the regular road assistance program, the BILD program provided job creation funding for another 67 projects which amounted to an additional subsidy of \$5,100,000. To provide for maintenance and construction on local roads within the unincorporated areas, \$3,850,000 was available to 112 local roads board, 11 statute labor boards and numerous special and specific projects.

Engineering and Right-of-Way Office

Staff completed contract plans and documents for a value of \$35,000,000. Approximately 90 per cent was done in-house and 10 per cent by consultants.

They also carried out property acquisitions for the capital construction program and continued with legal, engineering and geotechnical field survey operations to facilitate the program. As well, they carried out environmental and corridor-control activities and provided input into the ministry's pavement management system.

Drivers and Vehicles

Staff, under the direction of the regional office, is divided into two districts: North Bay and Timmins. They served the provincial districts of Parry Sound and Nipissing; the district municipality of Muskoka; the provisional county of Haliburton; the districts of Timiskaming, Cochrane, Sudbury, Manitoulin Island; the regional municipality of Sudbury and the easterly portion of the district of Algoma.

A staff of 69 employees was responsible for driver examination, motor vehicle licence issuing, driver improvement counselling, vehicle inspection programs and enforcement of the Highway Traffic Act, Public Commercial Vehicles Act, the Public Vehicles Act and the Motor Vehicle Transport Act.

A staff of 25 driver examiners and clerical support conducted a total of 18,158 road tests and 39,956 pre-examination at nine driver examination centres and 19 travel-point locations.

One regional review officer responsible for driver improvement counselling, conducted a total of 1,199 interviews with drivers who had reached the nine demerit point level and conducted a total of 10 hearings.

A staff of 12 vehicle inspectors conducted 4,674 commercial vehicle inspections, 1,522 school purpose vehicle inspections, 107 inspections of church buses, transit buses, "physically disabled passenger vehicles," and highway buses.

They also conducted a total of 1,513 audits and investigations of licensed motor vehicle inspection stations, as well as operated portable mini safety inspection lanes which resulted in the inspection of 2,708 light trucks and cars.

A total of 612 vehicles were removed from service for safety-related defects. The audits, investigations and inspection of motor vehicle inspection stations, commercial vehicles and passenger and light truck vehicles, resulted in a total of 639 charges laid under the Highway Traffic Act.

Twenty highway carrier officers conducted a total of 109,662 inspections at five permanent truck inspection stations, four audit truck inspection stations and eight patrol areas. A total of 3,974 reports of suspected violations were completed, with 3,200 resulting in court action being taken.

One motor vehicle licence issuing office maintained by two ministry employees in North Bay, conducted 30,115 transactions.

The supervisor, motor vehicle licensing agents, conducted six site surveys. As well, two newly appointed agents and four new clerks were trained to operate vehicle registration system equipment.

Northwestern Region

Construction Office

During the past year, 23 projects were completed in this region. Of significance was the completion of the first stage of the Kenora By-pass, officially opened to traffic on Sept. 26, 1983, valued in excess of \$10 million, the largest ever for northwestern region.

Work was completed in widening the Thunder Bay Expressway to four lanes from Oliver Rd. to Balsam St. The reconstruction of Highway 11/17, including paved shoulders, was completed between Thunder Bay and Kakabeka Falls.

The reconstruction/resurfacing of other sections of highways included Highway Nos. 11/17, 584, 599 and 17. Meanwhile, work started on the second stage of the Kenora By-pass as well as Highways 631, 527, 11/17, 582 and 628. Work also commenced in the construction of a structure spanning the English River on Highway 105 at Ear Falls, which, completed, will eliminate the need to utilize the hydro electric dam for traffic as has been the case for many years.

Maintenance

Routine summer and winter maintenance was carried out over 5,800 km of King's, secondary and tertiary highways. In addition, capital maintenance projects, including bridge and culvert repairs, prime and surface treatment and maintenance crushed gravel were undertaken.

Municipal

Some 70 municipalities and 11 Indian Reserves received regular subsidies amounting to \$17.4 million. Staff undertook 11 connecting link projects at a cost of \$1.3 million and two development road projects totalling \$300,000. Some \$2.9 million was provided to 116 local road boards, eight statute labour boards, 34 Indian Reserves (11 in the remote north), and other informally organized groups involved with public roads outside MTC's jurisdiction.

Engineering and Right-of-Way Office

Engineering and Right-of-Way staff completed all precontract engineering

activities for \$4.3 million work of capital construction. This work comprised 56.8 km of resurfacing-reconstruction and 124.1 km of grading and reconstruction. Also included were six structures. A number of miscellaneous projects ranging from load inspection sites to illumination of weigh scales were also completed. Contract preparation work was also undertaken for work on the district's minor capital and day labour programs, along with preliminary planning and precontract engineering activities for future programs.

Access Roads Office

Cost of summer and winter maintenance was shared with main user companies on 293 km of industrial roads and 69 km of tertiary roads. In addition, administration and control took place over 506 km of recoverable access road maintenance and four access road construction projects.

Remote Northern Transportation Office

Construction Program

New airports:

Kasabonika — 90 per cent completed;
Cat Lake — construction commenced; and,
Muskrat Dam — pre-engineering under way.

Projected total value: \$450,000

Maintenance staff administered and controlled operation and maintenance of 19 remote airports at a fiscal cost of \$2.4 million.

Staff administered and controlled the reserve roads program at 13 remote settlements at a cost of \$100,000.

Drivers and Vehicles Office

Vehicle Inspection

Personnel completed 2,831 mechanical fitness inspections on commercial motor vehicles. In addition, 1,907 vehicles were checked at safety lanes held throughout the region. And 729 inspections were performed on school buses.

Highway carrier staff checked 73,900 commercial vehicles, resulting in 3,298 charges being laid.

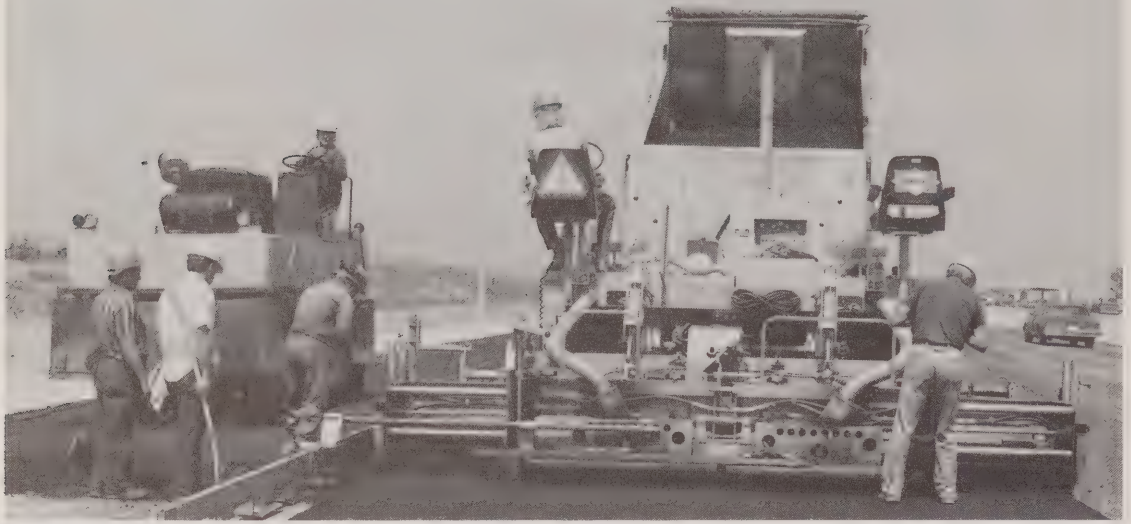


Engineering and



Construction

Highway Engineering Division



Engineering Materials Office

Foundations Design Section

Foundation investigations were carried out and appropriate reports for foundations design and construction were prepared, for a total of 94 structure and earth/rock work projects. Of these, 50 were done by in-house staff, and 44 by geotechnical consultants working under direction.

In addition, 72 foundation reports for inclusion in construction contracts were also prepared. Preliminary and final foundation design drawings were reviewed for 88 projects scheduled for construction in the next two years.

Specialist advice and service was provided to MTC, municipal and certain other agencies on all aspects of foundations design and construction, including 32 MTC and municipal construction problems where site inspection by senior staff was necessary. Such projects included embankment and other earthwork failures, culvert and tunnel dewatering problems.

The foregoing includes 34 foundation investigations for the GO-ALRT system of which 30 were conducted by consultants working under staff direction and the remainder by in-house staff. Foundation feasibility studies also commenced on the Oakville-Hamilton and northern system projects.

Seven different instrumentation projects were monitored to determine settlements due to rock-fill compressibility and consolidation of compressible subsoil. Also, a new project was initiated to monitor earth

pressures and vertical and lateral deflections of a structure abutment founded on compacted granular soil.

Bituminous Section

Development of performance specifications for hot-mix asphalt pavement construction continued to warrant high priority. After reviewing advanced systems in use by other highway authorities, extensive Ontario data was collected and used as a base for the development of a target quality assurance system. Fourteen contracts were selected for experimental evaluation of the draft system and further data collection during the 1984 construction season.

Detailed monitoring was initiated and continued to evaluate the performance of recycled mixes. Test data from several previous construction seasons was analyzed. Evaluation included continued work with emulsified rejuvenators, and the introduction of modifiers and softer asphalts than previously used.

Other priority work involved such initiatives as continued evaluation of pavement crack sealing materials and practices using updated techniques and equipment, revised instructions for waterproofing pavements on bridge decks and the utilization of steel slag fine aggregate in the construction of high-quality asphalt pavements.

Concrete Section

Staff continued to play a major role in the bridge rehabilitation sub-program.

The development and implementation of performance specifications for concrete was advanced by the transfer of the responsibility for concrete-mix design to contractors and arranging four trials where the contractor had the responsibility for the sampling of concrete, making of acceptance test specimens, curing of the specimens and transporting them to a designated ministry lab.

Testing of aggregates was continued to prevent the use of potentially alkali-reactive aggregates causing distress in concrete.

A policy was implemented requiring the use of CSA-certified private concrete laboratories for the testing of acceptance concrete cylinders in central, eastern and southwestern regions.

Chemicals Section

Staff reviewed, with regional and head office staff, the revised structural painting specifications (MTC form 911) and completed its "coatings descriptions" for inclusion in the guidelines for "coating of structural steel" currently being written.

A technical report was published on "accelerated methods of performance testing of traffic paint."

Soils and Aggregates Section

Extensive investigation revealed there are a fair number of concrete structures deteriorating due to the use of improper aggregates. To eliminate this situation, a systematic approach to the assessment of fine and coarse aggregates used in concrete was established to be followed by regional offices.

Physical requirements for the aggregates used in top quality bituminous surface courses were rationalized to be introduced in the new fiscal year.

Studies were completed (and reports issued) dealing with the issue of a mutually satisfactory location for acceptance sampling of aggregates. It was determined that samples taken during the construction of a properly-built stockpile were just as representative as those taken out of the stockpile or on the road.

Substantial progress was made on the computerization of the large

amount of data in the mineral aggregate inventory.

Major updating of our petrographic analysis procedures was instituted.

Environmental Office

Staff was responsible for the development and coordination of natural and cultural environmental policy, procedures and guidelines for the ministry's programs and agencies.

During 1983-1984, interpretation and clarification relative to identified environmental assessment matters was provided to the regional planning and design sections, municipal office, air office, communications division, Toronto Area Transit Operating Authority, the GO-ALRT and Urban Transportation Development Corporation.

Work was completed associated with the modification of internal policies and procedures for the ministry's projects

requiring individual approval pursuant to the Environmental Assessment Act, R.S.O. 1980.

Following an extensive review of existing environmental assessment class procedures, a new provincial highways program class environmental assessment document was prepared and submitted to the Minister of the Environment for approval.

Work continued on the preparation of technical guidelines and policy. The factors of noise and groundwater were incorporated into an environmental handbook for use in highway program areas. And staff provided expertise to internal ministry units and to external agencies.

Technical staff continued developing an environmental quality control program for the ministry. And they were involved in the training of construction and maintenance staff, the monitoring of contract packages, the inspection of construction and painting contracts, and the preparation of environmental specifications.

Highway Design Office

Staff of this re-organized office was responsible for six major areas of highway design policy: design development; design applications; highway standards; drainage and hydrology; design automation; and design evaluation and pavement.

Design development staff continued "as requested" reviews of current policies and prepared and issued a number of policy directives. Developmental work was continued on the tender analysis and payment system (formerly standard contract item code system).

Design applications staff prepared new and revised contents for the geometric design standards manual and the contract design, estimating and documentation manual; provided continuing expertise in geometric and detail contract design; participated in the development of the tender analysis and payment system; produced metric freeway interchange ramp templates; prepared new edge of pavement curve tables for intersections; and lectured at the municipal road design course.

Highway standards staff, besides maintaining up-to-date standard specifications and drawings for the design, construction, maintenance and safety of highways, issued the Ontario provincial standards. While not complete in every division, it's expected the ministry will dispense with its existing standards and use the new standards exclusively. These standards were the result of the cooperative effort of the Municipal Engineers Association, the Ministry of the Environment and MTC. Work on many standards was

completed during the year, notably in the electrical area. Monitoring of regional developed special provisions and special design standards continued.

Drainage and hydrology staff issued the pavement drainage and storm sewer design chapter of the drainage manual and made good progress on five others. Several training workshops were presented to the regions. Improvements to two culvert design programs were completed with the cooperation of computer systems branch staff.

Design automation staff continued to provide direct support to users in the regions, municipalities and design consultants with respect to engineering systems application. Two formal computer applications training programs (Part II) were given in central and northern regions. The section produced a user's instruction manual for the "information network system" which will facilitate contract management information flow among regions and head office.

Also, a "standard item code" system user's guide was issued, completing the first stage in a contract management system which will eventually automate design cost estimates, tender documents, progress payments and on-line updating and retrieval from a centralized project data base.

Design automation staff produced a series of reports in the computer aided design and drafting (CADD) study, in anticipation of the introduction of interactive graphics systems in the road design process.

A separate CAD (design) phase was initiated in-house to develop a SYS 050/MOSS integrated road design system using inexpensive graphic terminals. For CAD (drafting), on the other hand, a submission was made to Management Board for funding of a vendor-supplied, interactive graphics system to be installed and monitored as a pilot test project to obtain data on productivity improvement before full ministry implementation.

Design evaluation and pavement staff took a leading role in the ministry's pavement management pilot study. Phase I report was accepted by senior management. A new mays meter trailer was fabricated in-house to meet the proposed ASTM specifications for this equipment. Pavement roughness measurements were conducted using the mays meter on 5,500 km of highways on 120 projects. Pavement skid measurements were carried out utilizing a brake force trailer at 248 sites on 2,387 km of highways. The number of tests were 14,300. Most of the pavement roughness and skid measurements were done at the request of the regions. A number of policy directives dealing with design and pavements were prepared and issued (approximately 155). Criteria for design projects were processed and approved.



Structural Office

The \$38 million contract for the twinning of the Burlington Skyway was awarded during the year. Alternative designs for bidding were prepared in the structural office, and the successful bid was a mix of structural steel approach spans and segmental prestressed concrete main span. Staff was involved in shop drawing checking and approval on this project. The section completed studies for the rehabilitation of the existing Burlington Skyway structure and the preparation of contract documents.

The number of designs for new bridges dropped to 25, compared to 54 the previous year. Those designed by section staff remained much the same at 20, but the number completed by consultants represented only 20 per cent of the total compared to 65 the previous two years. Consultant work in structures shifted to the GO-ALRT project, and the structural staff reviewed consultant work on this project. In addition, the office participated in preparing the design criteria for GO-ALRT guideways and produced three basic design concepts which have been approved for their detailed design.

In the approvals section, the number of new municipal bridge designs that were checked increased to 186, from 137 the previous year. This included a major structure over the Hunt Club River (Regional Municipality of Ottawa-Carleton) costing \$7.3 million for which alternative designs were prepared in steel and concrete. In the

Heritage Bridge area, the stone arch Victoria Bridge in St. Marys was studied.

Staff also proceeded on a new Structural Inspection Manual.

The second edition of the Ontario Highway Bridge Design Code was published for use in bridge design and evaluation on ministry projects. Full implementation for municipal projects awaits the completion and testing of a modular computer system.

Surveys and Plans Office

Section staff continued to work on the establishment and evaluation of 730 horizontal control monuments on the Ontario coordinate system; 222 horizontal control stations were established for construction; 72 precise bench marks on geodetic datum were established and added to the vertical control system.

The legal documentation group examined 856 legal plans and 96 km of highway were designated as controlled access. The total is now 7,354 km. Staff training continued in surveying and drafting with four regional staff successfully passing qualifying exams.

The photogrammetry unit delivered 240 photogrammetric engineering plans and 15 cross-section projects as follows:

- Medium scale (1:2,000)
13 plans in-house and one plan by private mapping firm for the GO-ALRT program.
- Large scale (1:500 or 1:1,000)
127 plans in-house and 99 plans by

private mapping firms of which 10 plans in-house and 65 plans by private mapping firms were for the GO-ALRT program.

- 12 cross-section projects were also completed in-house and three projects by private firms of which two projects were for the GO-ALRT program.

The remote sensing unit continued work on new policies and procedures. Work on the project entitled "surveillance by remote sensing of the environmental effects of building a new highway facility" was well advanced. Two reports related to this project were issued during the year. In addition, the final report on developing remote sensing criteria for estimating boulder deposits was submitted by the consultant.

Staff also provided aerial photographic mosaics and image library services to the ministry and others; 2,566 M² of mosaics and related products were produced and 1,509 requests for image library services processed.

Cartography section staff produced three maps which now are in public distribution: the official road map, bicentennial edition; the Ontario Intercity Guide to Public Transportation; and the first of the new Ontario Transportation Map Series — Map #1 southwestern Ontario. Substantial work was also completed on Map #5 — South-Central Ontario and Map #8 — Eastern Ontario, of the new map series.



Research and Development Branch

The traditional focus of the R&D Branch continues to be solving physical problems arising in the design, construction, maintenance and safe operation of the highway system. Last year, special emphasis was placed on developing improved technologies for the repair and rehabilitation of pavements and bridges. Much of the work was carried out by ministry staff, but about one third of the projects were undertaken by consultants or universities under the Ontario joint transportation and communications research program.

Pavement Research

This group prepared and distributed "pavement management system guidelines for Ontario municipalities" as part of the research program to improve existing pavement management systems. Work also continued to support an upgraded pavement management system within MTC.

Research was undertaken in support of a national study of truck weights and dimensions, to achieve a uniform understanding of the effect that heavy trucks and trailers have on pavement performance. Work on the design of experimental pavements and their instrumentation was begun.

A study on crack seal performance and techniques was completed in cooperation with Ottawa District and a report was made to the 1983 Roads and Transportation Association of Canada (RTAC) conference. The findings helped to form trial guidelines for use by district maintenance staff in sealing cracks in flexible pavements. At the same conference a method for measuring the soil moisture content based on the transmission of an electric current through the ground over a

period of time (time domain reflectometry) was also presented.

Technology for the automated sorting of trucks at truck inspection stations was also developed. The weigh-in-motion sorting and an associated traffic management system to control truck movement through inspection stations was made possible by combining a weigh scale with an electronic microprocessor and video recording of traffic directed into the inspection station.

Highway Operating Systems

To improve the safe and non-intrusive operation of highways, a variety of research activities concerned with the properties of pavement surfaces, noise, illumination and safety barriers were undertaken.

Staff analyzed and classified surface reflectivity of Ontario pavements for the purpose of lighting design, developing and testing noise barriers and different mathematical models to predict the effectiveness of barrier installations. Staff also monitored the performance of a new median safety barrier.

Structural Research

The second and much improved edition of the Ontario Highway Bridge Design Code was published in collaboration with the ministry's structural office and in cooperation with university and consulting engineers.

A major contribution was also made in the preparation of design criteria for transit structures, with particular emphasis on the forthcoming GO-ALRT transit system.

An unbiased and relatively inexpensive survey of vehicle weights was conducted in Toronto by

instrumenting a bridge and turning it into a weighing device.

Ontario has been kept in the forefront of bridge engineering research in North America. Papers prepared by staff, based on research conducted in this office, have been accepted for presentation at two major international bridge engineering conferences to be held in North America in 1984.

Materials and Engineering System

In the materials area, staff conducted research on the corrosion of weathering steel bridges, as well as the durability, and rehabilitation of reinforced and prestressed concrete structures. In the environmental area, work concentrated on the use of mineral aggregates, problems associated with snow drifting and minimizing environmental impacts resulting from highway construction or operations.

The new engineering systems section was formed to examine a broad range of projects such as winter maintenance operations and the effect of highway design on maintenance.

Activities for the year included:

Four second-generation cathodic protection systems designed and installed on the columns of the Burlington Skyway Bridge.

In a joint study with Queen's University, staff examined the effects of surface cracks on the corrosion of reinforcing steel in concrete, concluding that narrow cracks do not affect long-term performance.

Staff compiled a two-part bridge deck rehabilitation manual, describing how to conduct condition surveys and prepare contract documents for the rehabilitation of concrete bridge decks.

Staff also developed methods of analysis for design of geotextile



reinforcement for the construction of earth embankments over soft subsoils. A report on road and bridge deck drainage systems was prepared, and physical testing undertaken to develop Ontario provincial standards for grate inlets.

A new type of snow fence and flattening of side slopes in drift-prone areas were both tested. The study was aimed at reducing the effects of snow drifting and white-outs in some problem areas. In addition, the environmental impact of road salting was studied and reported.

The new products committee processed information on 64 products for use in Ontario highways. These products were either commercially available or being developed by industry. Information on new products was distributed and a prototype electronic new products library, using the ministry's computer and communications network, was developed.

Estimating and Engineering Claims

On January 1, 1984, the ministry combined two offices to form the estimating and engineering claims office.

Estimating office staff operated with a complement of 24, prepared the official estimate on 238 contracts with a tender award value of \$264,434,749.39. Recommendations for award were made to senior ministry officials on 233 contracts and non-award on five.

Personnel also produced 127 construction cost comparisons, made recommendations for cost effective design alternatives, 265 contract item unit price negotiations and provided 518 preliminary project value estimates for the multi-year program.

Reports were prepared on unit bid prices, cost per kilometre construction,

equipment rental rates and minimum truck haul rates for internal use and outside agencies.

Engineering claims staff, which includes the new claims analysis section, taken over from engineering audit, resolved engineering claims submitted on capital construction and maintenance contracts submitted by the industry. Construction expertise in claims and related matters was supplied to head office and regional units.

Contract Management Office

Staff were responsible for the development of new policies and procedures related to contract management, quality assurance, labor management and staff training required for MTC construction activities.

The major thrust for these policy matters included:

- Development of performance specifications;
- Review of contract staffing; and
- Contract document review process.

Staff prepared final tendering documents for 185 contracts, and provided the official interpretation and clarification to contractors during the bidding stage.

Verification of quantities supporting final ministry payments to contractors by the regions was carried out on 246 capital contracts.

Property Office

Policy and procedures for appraisal techniques, acquisition of property, the rental, management and disposal of surplus lands and the quasi-legal aspects of the purchase of real estate in the title-searching and conveyancing functions were developed by office staff.

Using these policies and procedures, staff in five regional offices negotiated 874 amicable property settlements. The ministry expropriated 134

properties to obtain title for land required to permit contracts to proceed. Appraisals and acquisition of properties required for the GO-ALRT project were also conducted.

MTC expended \$19,204,714 in payment of compensation in acquiring title to lands required for highway projects. An additional \$454,458 was paid to owners affected by expressways, subject to cost-sharing agreements between the ministry and municipalities involved.

Revenue of \$4,331,408 from the sale of surplus land and \$744,576 from leasing properties was received.

Personnel carried out periodic audits of the five regional property sections to ensure adherence to proper policies and procedures and, in addition, provided technical advice and expertise when requested by regional staff.

The office was responsible for the resolution of all outstanding claims which could proceed to the Ontario Municipal Board, Land Compensation Office for arbitration. The ongoing caseload involved about 75 properties with decisions handed down, or negotiated settlements procured, in about 22 cases.

Another major responsibility was to monitor and review property appraisals carried out by regional staff and fee appraisers. This involved some 144 desk reviews of which 25 were arbitration appraisals. An additional, 62 field reviews were carried out of which four were regional requests, 33 were reviews of staff appraisal reports and the balance of 25 were arbitration reviews.

The ministry's formal training program consisted of courses involving appraisals and negotiations to which both this ministry and MGS participated. In all, 38 staff members attended the advanced appraisal course, while two participated in a probationary agents course.



Highway Operations and Maintenance

Maintenance Branch



The Maintenance Branch consists of maintenance management, productivity and development, and signs and building permits sections.

During 1983-84, the branch continued to fulfill its mandate of being responsible and accountable for the preservation and appropriate level of maintenance of the provincial highway system, through establishing policies and standards, allocating funds, providing functional direction for the delivery of the maintenance activity throughout the ministry and providing technical expertise.

Maintenance Management

Section staff sustained the computerized maintenance management information system, enabling maintenance managers to plan, organize, direct and control activities. They also developed relevant policies and procedures, monitored work performance and provided technical expertise and training.

During the past year, an aggressive effort to implement recommendations resulting from an extensive review of the entire maintenance management process began. Efforts have also begun to automate the planning process, utilizing micro-computer or mini-computer terminals to reduce the time required to complete the annual performance work plan in the districts.

Maintenance quality standards and operating instructions were selectively revised to reflect current policy changes and technical improvement. Field studies were performed to evaluate current maintenance practices. Staff began a project to coordinate and monitor pavement rout and seal repairs

to evaluate long term benefits of methods and materials, as well as benefits of performing this type of preventive maintenance procedure. This project will continue for the next few years.

Some 500 maintenance personnel received winter maintenance training to ensure those participating in winter maintenance were aware of policies and practices.

During the winter, 195 private snowplows were used instead of ministry-owned and staffed units, representing an increase of 60 over the previous winter. A combination of 93 MTC and private snowplows were operated by one person per plow.

Special Maintenance Services

Staff evaluation of materials, products and processes for cost-effectiveness continued, with some initiatives reaching successful completion.

Zone paint material tests, performed during the 1982-83 fiscal year resulted in the development of a revised specification for traffic paint. Five districts purchased a portion of their paint needs for 1984 using this specification for further evaluation.

Conversion of all zone-stripping machines to apply hot paint was completed, resulting in a reduction of total equipment needs from 17 to 16 units, with significant savings in capital expenditures as well as labour costs.

An extensive evaluation of thermoplastic pavement markings was undertaken. The performance of this material will be documented for another year.

A new specification covering the

purchase of overhead garage doors was developed and undergoing trial evaluation.

The development of a method for recycling or disposing of environmentally unacceptable waste materials (cleaning solutions, paint, etc.) has begun in conjunction with environmental office staff.

Landscape Planning Unit

Planning staff completed 29 landscape plans and an additional two were designed by consultant architectural firms. One of these, the Hwy. 409 entrance into Lester B. Pearson Airport, was prepared as a bicentennial project. In eastern Ontario, schemes were drawn up for the Norris Whitney Bridge parkette on Hwy. 14, and United Empire Loyalist Commemorative Gateway on Hwy. 33. Four landscape contracts were inspected by landscape architectural consultant firms.

Staff provided input to projects on the capital construction program by providing inventory assessment and interpretation of vegetative and aesthetic factors during preliminary and detail design stages. In total, landscape development design advice was provided on 76 projects.

Landscape planners also provided the GO-ALRT program with a review and monitoring function on landscape architectural issues.

As part of the highway rest picnic information site policy review, staff prepared and distributed a questionnaire to acquire information relative to provincial roadside sites and their amenities.



Landscape Operations Unit

Providing technical assistance and the monitoring of roadside vegetation management activities continued to be a top priority. During the year, staff provided expertise to all district and regional offices, assisting local managers with their landscape activities. A training seminar was held in northwestern region for maintenance and construction staff involved in the vegetation management field. In addition, at the request of the municipal engineers liaison committee, a week-long course in roadside vegetation management was prepared and conducted for municipal employees and attended by approximately 40 candidates from across the province.

Following extensive soil testing and field evaluations, site-specific recommendations, which included grass species, fertilizer types and rates, etc., were provided to district maintenance staff for seeding the Detour Lake mine road. Over 350 hectares were seeded with a maintenance-free vegetative cover and erosion was satisfactorily controlled.

Following the issuing of the new seeding specification and in a continuing effort to improve the ministry's results in erosion control, the seed supply specification was revised. A grass species native to Ontario has now been included and an expensive imported variety eliminated from standard MTC seed mixture.

Studies were carried out on the results obtained in contract landscape planting. The plantings consisted of approximately 13,700 units of nursery-grown coniferous and deciduous trees and shrubs planted by

contracting firms and resulted in approximately 86 per cent survival. Considering the harsh environment in which the planting takes place, the results are considered acceptable. In an effort to improve the quality of plant material supplied to our district maintenance forces for planting, the ministry's specification for the supply of trees and shrubs was metricated and additional changes implemented in accordance with practices utilized by the nursery industry.

Design modifications to the existing weed sprayers were recommended and provided to district maintenance staff. When implemented, they will increase the operational efficiency and productivity of these units by a third. Basically, they consist of additional nozzles and associated hardware on the spray boom to increase coverage by an additional three metres.

Sign & Building Permits Section

Staff continued to address the issue of improved customer service, through items such as a more streamlined permit format and issuing procedure as well as a shift toward computerized record maintenance.

Head office personnel continued to provide policy, procedural and technical advice to the five regions and 18 districts.

Changes to the ministry's sign control policy were prepared for senior management review, reflecting the combined input of the product user as well as the Ontario advertising industry.

They addressed issues such as the need for a new policy for development or construction site signing as well as time and temperature displays, increased location sign sizes, the use of

read-o-graphs, the new high-tech electronic message displays.

Another project was the successful negotiation and implementation of a letter of common understanding between Bell Canada and MTC, reflecting both parties' desire to better utilize the utility corridors on MTC rights-of-way.

Training seminars were conducted in the five regions for district inspectors of sign & building permits and other interested staff.

New building starts were up with a total of 2,563 issued with a construction value of \$272,963,790. This was an increase of 550 over last year. Also 1,394 new entrance permits were issued, up 52.

The number of field advertising signs approved under permit for 1983 was 7,713 with a fee value of \$268,064.

Other permits issued included: 1,131 encroachment permits; \$1,394 entrance permits; 90 legal agreements for coaxial cable and gas pipelines; 1,117 location sign permits; 696 portable and temporary signs. There were also 2,660 guide signs issued, which included the ministry's new rec/resort signs.

Because of new streamlined policies and close contact with the regions and districts, there were fewer infractions this year.

A major drive was mounted to have all the old black and white rec/resort boards changed over to the new chocolate, white and green boards because 1984 will be the last year for the old ones.

The ministry was grateful for the extensive cooperation given by MTR tourism ontario and the (NOTO) Northern Ontario Tourist Outfitters Association for their assistance in this project.

Traffic Management and Engineering Office

Staff developed policies, procedures, standards and specifications; provided technological leadership and carried out development of traffic signs and markings, signals, electronic control systems, electrical design and maintenance, freeway traffic management, traffic devices, traffic accident data and traffic analysis. They also provided program delivery in electrical design for all regions except central.

In Traffic Signing, two special signs commemorating Ontario's Bicentennial were developed. They were erected at all highway border crossings into the province. In addition, a special route marker was developed for the Loyalist Parkway, a section of Highway 33 from Trenton to Kingston, commemorating the arrival in Ontario of the United Empire Loyalists after the U.S. Revolutionary War.

New policies and sign standards included a golf course marker for resort area signing and a neighbourhood watch community sign for use in municipalities.

The policy of signing local radio stations in northern Ontario that provide traveller information was extended to several designated adjacent areas with very few radio stations. Diesel and propane fuel signing was provided for freeway service centres on Highways 400 and 401 where applicable.

A study was initiated on reflective sign sheeting used on freeway overhead and large ground-mounted signs, to determine the most cost-effective sheeting materials that met visibility standards. Work continued on revisions to the manual of uniform traffic control devices.

In traffic signals, a project was initiated to convert SSTOP, a Canadian signal network optimization program, for use on a microcomputer. When completed, this will allow municipalities and consultants to use the program. Personnel also continued application development on the model 170 controller. Studies were undertaken in the areas of signal capacities and signal displays and work undertaken on the revision of the signal section of the Highway Traffic Act. The amendments were expected to become law in the spring of 1984.

In electrical engineering, a major effort was directed toward preparation and implementation of a development plan, with the objective of improving manuals, standards, specifications, design procedures, contract preparation, maintenance, technical development and cost-effectiveness. lighting poles, was investigated and

approved as a cost-effective alternative to conventional lighting in certain freeway applications. Investigation continued on programmable lighting, whereby the lighting levels on the highway can be varied with traffic and weather conditions to achieve better use of energy. A report was issued on experiments conducted on tunnel lighting with regard to improved visibility and safety and reduced energy demand.

MTC now has 225 model 170 microprocessor-based traffic signal controllers in operation, excluding those turned over to municipalities for operation within the urban computer-controlled signal system. Ministry development and specification of these controllers has supported the efforts of Canadian suppliers who recently completed an order to supply such signal controllers to the states of New York and California.

Technical assistance was provided to municipalities studying, installing and operating computerized traffic control systems, assisted by a ministry subsidy.

Preparation of a new technical specification for the installation of vehicle detector loops was initiated.

Development began on a computerized electrical record system,

primarily for use of the district electrical staff in processing records and reports.

In freeway traffic management, eastbound operation of the QEW system in Mississauga continued. A study was initiated to examine the feasibility of expanding the existing system to include the westbound lanes and extend the limits east to the Gardiner Expressway.

Construction of the control centre for the QEW-Burlington Skyway system was undertaken. Acquisition of the computer equipment for this system was initiated and development of the application software begun.

Corridor Control Section

Section staff were responsible for policies relating to access control and the compatibility of development with provincial transportation systems. Some 4,500 land development applications were reviewed to ensure compatibility. Other activities included two major studies:

- i) Computer information management system, developed under our direction by the Computer Services branch; and
- ii) Route protection methods for transit, undertaken by consultants for GO-ALRT with our assistance.

Equipment Engineering Office

Some 17,000 pieces of equipment, ranging in size from 10-ton snowplow units to chain saws were used by the ministry to enable it to provide various services across Ontario. The safe operation, repair and maintenance of this equipment — which cost approximately \$78 million — was the concern of this office.

During the year, staff continued to discharge its functions, including:

- Establishing the policy under which equipment would be operated, repaired and maintained;
- Providing training for equipment supervisory and technical staff;
- Specifying and initiating requests for new equipment;
- Building certain specialized equipment;
- Evaluating new equipment likely to be of use to MTC; and
- Providing fleet services for Downsview head office.

Highlights were:

- Implementing improvements to the equipment inventory system;
- Continuing to coordinate the ministry's province-wide safe driving roadshow in 18 districts and head office;
- Expending \$6.3 million in new

equipment, of which major acquisitions included:

- 164 cars and light trucks, 66 heavy trucks and 42 sanders;
- Converting two zone striping units from rear single axle to tandem rear axle machines, improving productivity to the extent southwestern region will reduce its striping complement by one;
- Evaluating numerous new pieces of equipment, including:
 - Tungsten carbide snowplow blades from potential new suppliers, including a Swedish blade with carbide chips impregnated into the steel;
 - Holley propane conversion for cars and light trucks;
 - Snowplow equipment from two new suppliers (Larochelle and Schmit);
 - A natural gas powered pick-up truck supplied by research and placed in actual fleet use in district 6;
 - A fiberglass dump body which has the potential for longer life and reduced maintenance over steel bodies; and,
 - An evaluation of snowplow spare parts requirements which allowed central stores to reduce inventories.

Safety and Regulation



Transportation Regulation Operations Division



Coordinator of Resources Office

Office staff monitored program, staffing and financial resources for management of the Transportation Regulation Operations Division and Transportation Regulation Development Branch.

They monitored all program and sub-program delivery areas under the ADM Safety and Regulation to establish adequate service levels and ensure human and financial resource utilization efficiency is maximized.

Staff also established and proceeded with implementation of a human resource long range plan for all delivery areas.

Systems Improvement Office

Personnel provided systems development and maintenance support services for all systems (both manual and computer) within the safety and regulation program. Major initiatives were undertaken in the following key areas:

- Systems development and maintenance in relation to the major new Vehicle Registration System with 350 agents on-line across the province and major head office components in both Downsview and Kingston;

- Ongoing maintenance and development support in relation to the major driver system to attempt to effect efficiencies and savings, wherever feasible;

- Continuing development and support in relation to the comprehensive program-wide management reporting system and associated work measurement efforts; and,

- Business systems development support to the trucking regulatory reform implementation project (TRRIP).

Ongoing support continued in the development and maintenance of policy/procedure manuals and internal/external forms across the entire program.

Operational Policy and Standards Office

In October 1983, the highway carrier and vehicle inspection administrative functions of the program administration office along with the dangerous goods transportation staff were amalgamated to form the new operational policy and standards office. The main function of this office was to assist and promote a uniform application of motor carrier regulatory controls.

Personnel now provide technical

expertise as well as operational procedures and standards to assist in interpreting ministry policies on regulatory issues. The research and development of operational policies and procedures are documented and distributed in the form of policy directives.

Staff develop, coordinate and conduct training courses for MTC field staff. Various information posters and pamphlets are produced and distributed as part of the awareness programs of this office. This information is disseminated to various federal and provincial agencies, the trucking industry and local governments. Technical and program information is also provided to industry, the media, the general public and the ministry's enforcement staff.

Administrators and policy officers also assisted in the development of new or amended legislation and in the development and implementation of new motor carrier programs. Examples of such on-going projects include the coordination of Ontario's strategy in the creation of a nationally uniform code for the transportation of dangerous goods; the development of a model federal-provincial agreement and the fuel system inspection program for propane-fuelled vehicles.

Compliance Branch



Staff promoted the regionalized delivery of a uniform and rational compliance program with responsibility for the carrier licensing and information office; office of special investigations; operational policy and standards office; weights and dimensions office and vehicle standards office.

Personnel monitored such programs to insure consistency with governing legislation, policies, and procedures, providing coherent direction to Enforcement officers in respect to compliance of economic regulatory control legislation and the Highway Traffic Act.

In addition, the branch in conjunction with transportation regulation development, aimed to reflect an awareness of Ontario's needs, relationships with other jurisdictions, and the exchange of compliance information.

The education, cooperation and communication with both the regions and industry were continually under examination and development toward an effective program which responds to Ontario's needs.

Special Investigations

This office, previously the investigations and prosecutions office, was created in October 1983, through a reorganization of the compliance branch.

The current role can be split into three areas: carrier control, special investigations and administration and planning.

In its special investigations role, staff carried out complex investigations as well as those referred to it by senior management and the regions. In addition, they conducted investigations in northern and northwestern Ontario and Quebec on behalf of the regional investigations units.

In their carrier control capacity, staff was responsible for ensuring compliance pursuant to the PCV Act, the PV Act, the MVT Act (Canada) and HTA through means other than the court process; such as initiating operating authority referrals and vehicle registration and operating authority cancellation proceedings. In 1983, they referred four cases to the OHTB for review and initiated cancellation proceedings against 13 commercial vehicle operators.

In 1983, staff arranged for service of 937 summonses out-of-province related to prosecutions in Ontario. Coordinated regional and head office data also showed there were 3,142 charges pending before the courts. The office developed ways to improve carrier control through improved detection, prosecutions and sanctions strategies.

Faced with changes in the compliance area resulting from regulatory review and reform — recommendations of the PCV Act review committee, the Uffen Commission, the bus committee and new dangerous goods legislation, staff examined the way MTC delivered its compliance program. Consequently, the branch was in a transitional phase

between reform development and implementation and was in the process of redefining its role and mandate.

Carrier Licensing and Information Office

Staff was responsible for the monitoring of Ontario Highway Transport Board certificates for compliance with the Public Commercial Vehicles and Public Vehicles Act and the Motor Vehicle Transport Act (Canada); the issuance of operating and vehicle licences associated with the board-issued certificates; administration of Ontario's participation in the Canadian Agreement on Vehicle Registration (CAVR); the issuing of special permits for the movement of overdimensional vehicles and loads; licensing of motor vehicle inspection stations; the issuing of safety standard certificates and dump vehicle and bus inspection stickers.

Weights and Dimensions Office

Staff provided consulting service to ministry groups engaged in the preservation of the highway system by the review and approval of permit applications, involving the proposed movement of vehicles and loads exceeding routine guidelines for weight and dimensions, and advisory service to industry groups wishing to take maximum advantage of the transportation facility. They also assisted in the development of weight enforcement strategies as applied to both system and equipment needs.

Transportation Regulation Development Branch

Safety Coordination and Development Office

To support the ministry's highway safety objectives, staff initiated and coordinated the development and implementation of a broad range of countermeasures, many of which were directed towards reducing accident losses by improving driver performance.

Viewing driver attitude and motivation as a potentially high pay-back area for reducing accidents, staff focussed efforts on driver control programs, synthesizing results of past driver improvement studies with a view to evaluating existing programs and developing innovative new approaches in this area.

One such project involved a preliminary evaluation of Ontario's Probationary Driver Licence Program which was found to have a positive impact on reducing the number of violations and accidents among newly licensed drivers.

Staff also participated in an international symposium on young driver accidents in an attempt to devise new strategies to improve the safety of this group of high-risk drivers.

Recognizing that motorcycle riders constitute another high-risk road-user group, personnel conducted an in-depth analysis of fatal on-road motorcycle accidents and convened a seminar on safety issues. Participants, included motorcycle educators and safety experts, the police, rider organizations and the motorcycle industry. A number of countermeasures were subsequently developed, including development of a new motorcycle operator's manual and changes to motorcycle licensing procedures. Additional studies and data system changes were undertaken to provide more information on motorcycle accidents for future initiatives.

Throughout the year, the problem of the drinking driver remained of primary concern. Staff worked with public and private organizations across the country to share information and devise strategies in an attempt to come to grips with this major highway safety issue.

The importance of accident data in the development and evaluation of highway safety policies and programs was highlighted during the year. In addition to compiling and publishing comprehensive annual motor vehicle and snowmobile accident data for the province, analyses were conducted to identify factors and trends associated

with specific types of accidents, particularly fatal and multiple vehicle accidents. In order to better meet the safety policy and evaluation requirements of the 1980's, a long range plan for the provincial accident data system was developed.

As part of its driver education support function, staff finalized the development of a new driver education textbook and curriculum and coordinated a seminar on driver education issues with safety experts and industry representatives. Other activities included development of a new child restraint usage brochure to advise parents how to correctly choose and use child safety seats, and developmental work in the areas of school bus safety and daytime running lights for motor vehicles.

Program Evaluation Office

Staff evaluation efforts were carried out through the government managing-by-results concept.

Interface with the sub-program working groups resulted in the refinement of many of the results spectrum indicators.

Monitoring of fatal accidents, with special emphasis on motorcycles, continued as a major initiative.

Project Development Office

Throughout the year, staff provided consulting and support services to both internal and external committees, including the ad hoc committee on log hauling. A major project covered the investigation and development of a photo driver licence delivery system in anticipation of such a program being instituted.

Through the legislation development process, the Off-Road Vehicle Act was prepared for debate in the Legislature and received Royal Assent. Subsequently, regulations were developed to allow for full implementation during 1984. The Legislative Review Committee remained active in producing a Fall bill to amend the Highway Traffic Act, which allowed the filing of numerous regulations.

Vehicle Standards Office

Staff provided consulting service to MTC and other ministries, police, lawyers and the public in matters

related to vehicle legislation, standards and performance. They also recommended and assisted in the development of legislation and regulations.

Staff also took leading roles in the development of propane vehicle inspection regulations and a national standard for public motor vehicles used in the transportation of physically handicapped people. It is also taking an active part on the technical steering committee responsible for a \$2.8 million national truck size and weight standardization project. In addition, it responded to a number of proposed new and amended federal standards affecting the manufacture of new motor vehicles.

The office assisted police in their investigation of a number of accidents involving heavy commercial vehicles, served as expert witness at the coroner's inquests and court trials and responded to coroners' jury recommendations.

Trucking Regulatory Reform

In June, 1983, the Public Commercial Vehicles Act Review Committee completed its task of developing new principles by which to regulate Ontario's trucking industry. The report, *Responsible Trucking*, offers an outline of regulatory reform, emphasizing effective goods transportation and fair and equitable competition.

The implementation of reforms is expected to take about two years to complete by members of the implementation steering committee. A shared structure of government-industry consultation, they will recommend how to implement reform measures. In addition, there's an open channel of continuing communication with all parties interested in regulatory reform of trucking, through the truck transportation office.

A number of government-industry sub-committees were also established to deal with key areas of reform, including enforcement, agency reform, rates and competency. A licence rewrite commission was given a mandate to simplify existing operating authorities.

Major changes aimed at reducing regulatory complexity and promoting fair and equitable competition will be tabled in the legislature in the fall of 1984 and, if accepted, would become operational at the end of 1985.



Ontario Commission on Truck Safety

In April of 1983, the Ontario Commission on Truck Safety, chaired by Dr. Robert Uffen of Queen's University, submitted its final report to the minister. The commission investigated and reported on all facets of truck safety in the province. Sixty-one recommendations were made. Since the report was tabled, action has been taken or is pending on over half of them in an effort to improve truck safety.

Bus Transportation Office

Staff were responsible for the continuing deliberations of the ministry's bus committee, assumed the chair of the CCMTA working group on bus transportation, coordinated the administration of Ontario's inflation restraint legislation as it applies to the Public Vehicles Act, and consulted directly with carriers and communities contemplating major changes in services and/or tariffs.

In response to MTC presentations on the subjects of rural mobility and

intermodal transportation, the bus committee received a number of briefs on a wide variety of subjects, prepared by the Ontario Motor Coach Association, the Ontario Advisory Council on Senior Citizens, and other groups. As a result, members are now in a position to initiate a bus industry-VIA Rail working group to facilitate intermodal travel, and directly examine the impact of the licensing relationships between scheduled services and charter trips as they affect services in rural areas.

The committee was also instrumental in the completion of a multimodal travellers survey coordinated by the ministry's intercity office, in arranging for the Ontario Highway Transport Board to investigate in detail an industry proposal in favour of deregulating the licensing of school bus operations, and in the completion of an intercity bus costing study and model.

Finally, the Canadian ministers responsible for transportation and highway safety, in the fall of 1983, asked the CCMTA working group on bus transportation to draft guidelines for the carriage of disabled passengers by intercity bus for consideration at their meeting in the fall of 1984. In its

capacity as the chair, the bus transportation office consulted with groups of disabled people as well as intercity bus carriers for this purpose.

Truck Transportation Office

Personnel continued to provide the support necessary to maintain a stable operating environment for both the trucking industry and users of trucking services.

To promote efficient highway transportation of goods between Ontario and other jurisdictions, there was liaison with other levels of government and representation through the Canadian Conference of Motor Transport Administrators and the American Association of Motor Vehicle Administrators.

Staff were closely involved with the Transportation Regulatory Reform Implementation Project, assisting in the development of regulatory reform proposals. They also assisted in implementing recommendations of the Uffen report.

Negotiations led to further reciprocal commercial vehicle registration and agreements between Ontario and other jurisdictions.



Operational Policy Office

Staff was responsible for development of new operational policies and procedures; the evaluation and revision of current operational policies and procedures; the monitoring of field and head office operations to assure consistency of the administration of operational policies and procedures; and staff training to meet changes in policy and procedures.

Personnel covered two major subject areas, each having a coordinator and support staff, including: vehicle licensing and control; driver examination; and driver improvement.

Driver Improvement Office

Staff were responsible for ensuring adherence to standards established for the licensing of drivers and monitoring drivers' post-licensing activities. This was accomplished through the activities of two sections: driver control and medical review.

Driver control entailed maintenance and administration of the demerit point and probationary driver systems and administration of licence suspensions and reinstatements related to driver behavior and attitude.

Medical review staff were responsible for monitoring drivers required to file periodic medical reports as a requirement to maintain their class under the classified driver licence system, and drivers identified as having medical conditions making it unsafe for them to operate vehicles. They were also responsible for the administration

of medical-related licence suspensions and reinstatements.

Both sections contributed to the maintenance of an accurate cumulative operating record of each Ontario driver.

They also provided administrative support to other Toronto offices in record maintenance, typing, revenue control, mail distribution and computer output quality control for renewal applications and licences.

Production Operations

The production operations office was responsible for ensuring the effective operation of the branch's Kingston-based office; providing direction to the field support, licensing operations, financial control and stock management and support services offices.

Staff provided centralized training, production control and administrative services.

All offices were fully functional in Kingston after relocation from Queen's Park and Downsview in the spring and summer of 1983.

Licensing Administration Office

This office was responsible for answering enquiries from the public, government agencies and other groups regarding the policies, regulations and legislation governing drivers and vehicle licensing in Ontario. In addition, it provided a search service of driver and vehicle records for the public, enforcement agencies and the courts.

Licensing Operations

This office consists of the following three sections:

Renewal processing which provided Ontario's motoring public with a mail-in service for both driver and vehicle renewals;

General issuing which provided a mail-in service for corrections, changes of address, replacements, requests for application, transfers, own-choice plates and name changes; and,

Driver and collision record input which processed driver improvement transactions and reports of all collisions occurring in the province.

Field Support

Staff received and monitored reports received from 310 appointed issuing agents, MTC offices and 68 driver examination centres. They were checked to ensure appropriate fees were collected and submitted to the Treasurer of Ontario.

Additionally, the office provided a high-volume inquiry service in a "hot-line" mode to all of the above offices.

Financial Control and Stock Management

This office consists of two sections:

Financial control which accounted for and consolidated all revenue received through driver and vehicle production related activities; and,

Stock management which provided a stock procurement and stock planning function for driver and vehicle stock, forms and material.



Finance and Administration

Transportation Capital Branch

Branch staff was responsible for the effective management of all transportation capital investment resources. In addition, they provided highway planning, priority setting and programming services on a program-wide basis as well as scheduling and expenditure control for capital construction and ancillary investments.

The branch has three functional units: highway program planning office, highway program administration office and capital investments office.

Highway Program Planning Office

Office staff, with supporting sections, planned and co-ordinated future development of the provincial highway program. Functions included annual long-range planning; development of program/sub-program activity priorities; development of system policy; co-ordination and synthesis of highway planning information; and evaluation of program performance and effectiveness.

Through the manager, personnel also provided support to the chairman of the provincial highways program committee.

An increased emphasis was placed on strategic planning and priority setting and there was a move toward planning "alternatives development" and evaluation by the functional executives of the program co-ordinated by the planning staff.

Long-range planning (LRP) involved analysis of issues and demands to match products and services to future requirements. Specifically it involved a calculated speculation of future program issues, financial outlooks and system needs to determine the program future emphasis.

LRP also involved analysis of financial outlooks, public perceptions, major priorities, personnel implications, automation and technology, strategic directions, privatization and other external factors to arrive at program alternatives in capital, maintenance, design and program administration. Specific five-year targets were developed in various aspects of the program so that products and services properly match future requirements and emphasis.

Increased emphasis on strategic planning and priority setting and a move towards planning alternative development and evaluation by the functional executives was co-ordinated by planning staff.

Program evaluation assessed the effectiveness of the program in terms of measurable public benefits and provided information on the relative

significance of various sub-programs as well as monitoring results through MBR reporting.

Program priority planning people carried out analysis and development of system rehabilitation and system expansion priorities to obtain benefits for the overall provincial highway program. Priority analysis determined funding to be allocated to each sub-program and activity and identified priority on system improvements and changes.

System analysis staff developed policies ensuring provision of equitable and adequate services on the highway system. The extent and location of system improvements, impacts of level of service changes and variations in quality and quantity standards were analyzed to guide management decisions.

Information systems collected, processed and synthesized information to support the overall planning and management of the program. In addition, staff provided significant technical data and other information for internal use, including background for the "highway distance table" and "traffic volumes King's Highway and Secondary Highways."

Highway Program Administration Office

The administration of the provincial highway program, including operational planning services, the construction plan, program budgeting services and construction expenditure control were the responsibility of office staff.

In operational planning services, the unit continued with the development of an operational planning and management process for the total highway program, with efforts concentrated in the pre-contract engineering area. Support services were also provided to various other program areas, such as: Ontario Highway Transport Board; structural management committee; maintenance branch.

A multi-year construction plan was developed to provide management with the information necessary to direct and monitor capital construction expenditures in response to constraints or initiatives. The annual construction projects report provided the public and legislature with a concise look at the current year of this construction plan.

In-year expenditures were co-ordinated, monitored and controlled on a continuous basis and reported periodically to senior management.

Advance notices for contract tenders were prepared and issued to members of the Legislature and press.

Senior management was provided with regular financial status reports. In addition, special statements were provided on the Board of Industrial Leadership and Development, transportation investments, job creation and the Ministry of Northern Affairs regional priority budget and special projects.

Scientific computer systems were used in the process of individual project control. Critical path method (CPM) construction schedules were provided as information to bidders on most major projects. The construction resources evaluation package (CREP) was used extensively to determine construction staffing requirements and related costs. The expenditure forecast system (X-For) continued to provide a calendarized expenditure profile on all projects in the construction plan.

An operational plan was developed for the office highlighting the need to investigate more sophisticated management information systems and office automation.

Capital Investments Office

Restraints required that capital investments be managed carefully. They prevented service "needs" being met in all programs requiring difficult choices on funding and timing of capital initiatives. To aid in these decisions and tie them more closely to the MTC strategic planning guidelines, more comparable information and a co-ordinated approach toward capital investments and trade-off opportunities were needed.

Office staff provided consolidated capital planning and management information and recommendations on proposed and active transportation capital investments. Established in January of 1983 as a part of the strategic organization plan, capital management was emphasized.

Staff objective was to achieve the total transportation capital investment, facilitating effective use of available funds within four transportation programs: provincial highways; provincial transit; municipal transit and provincial transportation/air.

A general framework of operating procedures was endorsed for integration with current practices. This approach was given practical testing in the 1983/84 fiscal year. It continued to be refined and applied for the effective management of capital investments in each transportation program.



Computer Systems Branch

Following the successful completion of the new on-line, real-time vehicle registration system (VRS) and the disbanding of the project team at 3501 Dufferin St. in the fall of 1983, this branch assumed full responsibility for the ongoing maintenance and support of the new system.

Concurrently, the former driver systems office and vehicle systems office were merged into one organization — the regulation systems office. It provided system development and maintenance services for all of the automated systems in the ministry's safety and regulation program, including driver vehicle registration and compliance systems. Technical support for the remote network of the VRS was provided through the planning and technical support office, which also supports other ministry distributed data processing systems such as operations management system (OMS).

The growth of new automated systems in other areas of the ministry continued, resulting in a branch staff increase. Staff complement was 119 versus 102 at the end of last fiscal year. The total ministry budget for automated data processing for 1983/84 was approximately \$21.7 million — an increase of 27 per cent.

Extensive use of consultants to supplement staff assigned to systems development projects was common

practice over the past years. Management Board of Cabinet adopted a government standard which provided for 25 per cent privatization of development work. Staff anticipated it will achieve this standard sometime in 1984/85.

Implementation of a ministry policy to transfer responsibility for production functions (such as data entry and data control) from the branch to user areas was started in 1982/83 and continued. Five positions — four to the Financial Planning and Administration Branch and one to the Maintenance Branch — were transferred.

The approved recommendations resulting from an internal study of computer services by the management improvement branch were almost implemented, resulting in three new technical positions: systems education coordinator, systems planning specialist and a software support specialist. Administrative support provided through the branch's executive section was also increased from one to three persons.

The number of micro computers acquired by the ministry increased dramatically in 1983/84 and now totals about 40. The new micro computer resource centre played an important role in supporting the selection and acquisition of both micro computer hardware and software.

It's anticipated the demand for these services will continue in the next fiscal year. As the number of different types of micro computers and software programs increased the range of technical expertise in the resource centre went up. Consequently, staff were asked to develop a micro computer policy allowing MTC to standardize on one or more specific micro computer technologies.

Regulation Systems Office

Staff were responsible for computer systems design, development and maintenance services as well as technical support services for MTC's safety and regulation program. The administration of the Ontario Highway Traffic Act, the Public Commercial Vehicles Act and other regulations is supported through four major automated systems for driver licensing and control, vehicle registration, accident information and highway carrier licensing.

Over 100 operational sub-systems were maintained in support of these four areas. Much of the staff time was spent in completing and stabilizing VRS and ensuring the level of service commitments to the public, police and courts were maintained.

Some of the major activities completed included:

- Implementation of several major enhancement releases of VRS;
- An interface to link D&V systems for change of address information;
- The technical reorganization of the huge data bases used with these systems;
- The application of special optimization techniques to help reduce the inherent high operational costs;
- The evaluation of the impacts of a photo licence system for 5-1/2 million Ontario drivers;
- The design and development of a new stock and financial system to maintain accurate revenue control over the millions of vehicle renewals and transfers each year.

The accident information and highway carrier licensing systems were relatively untouched and required only minimal support.

Transportation Systems Office

Staff provided software application development, maintenance and productivity support services to three MTC programs: provincial highways, provincial transportation and municipal transportation.

About 50 operational systems were maintained in support of structural design, hydrology, road design, transportation planning, research and traffic engineering activities — systems which supplemented the production process in every facet of highway design and transportation planning.

Due to their universal application, several engineering computer programs were requested and given to other government agencies, municipalities, universities and consultants for local computer installations. The ministry's simplified transportation planning package was in use in most Canadian provinces.

Major projects completed included:

- The structural design systems used in the design of the twin Burlington Skyway;
- The road design system made more immediately accessible to regional offices and consultants through online data base enhancements;
- Transit ridership simulation models developed to aid the GO-ALRT project;
- A municipal directory database developed to facilitate communications with municipalities receiving municipal roads subsidies;
- A mineral aggregate inventory system implemented to provide regional design offices with information on 15,000 sources of granular construction material across the Province.

Planning and Technical Support Office

Staff were responsible for providing technical support to branch development offices and ministry client offices in the effective use of information technology, including:

- Development and introduction of improved methods and techniques for systems development;
- Evaluation and introduction of productivity improvement tools for systems development;
- Systems quality assurance and productivity measurement;
- Development of policies, procedure and standards;
- Location and introduction of generalized software for MTC clients;
- Technical consulting, advice and assistance;
- Evaluation of hardware and software products and assistance with acquisition processes;
- Operational support for distributed data processing networks.

A new function was established to undertake information technology strategic planning.

The initial goal was to obtain corporate executive support for the development of policies and strategic directions ministry-wide through the active participation of all programs.

In the past year more than 50 ministry offices made use of the facilities and services of the micro-computer resource centre. To date most micro-computer users have been interested in data base management, decision support and word processing applications.

Management Information Systems Office

Office staff provided systems development support to the ADM Finance and Administration.

About 30 operational systems were maintained in support of financial, operations, project management, equipment management, operations management system, OMS, the MTC financial systems, the human resources inventory, provincial highway inventory and performance budgeting system.

A major thrust was the continuous transfer of responsibility for systems operation from CSB to various users. This was achieved by converting the old style keypunching of input data (at CSB) to on-line data entry at the users workplace. Also users were trained to request and obtain via on-line terminals standard reports as well as special reports using fourth generation languages.

Other major development projects were as follows:

- The operations management system, OMS, was enhanced with the addition of a module for reconciliation of OMS with the financial system. A sign-shop sub-system was also tested;
- The first stage of a standard item code system was implemented;
- The human resources inventory system was enhanced to provide assistance for career and succession planning;
- Development of the workmen's compensation system for the occupational health and safety office;
- A production management system was developed for MTC's instrument repair shop;
- A new accounting system for the CSB was developed.

Arrangements were completed with the Pennsylvania Department of Transportation for possible adoption of the PennDot Contract Management System, CMS, in MTC. A copy of CMS was obtained for testing and evaluation.

Regional Liaison and Production Services Office

Staff provided production support to MTC computer users, municipalities and engineering consultants working on ministry projects.

- Central data entry group provided key-punched cards for MTC's batch systems;
- Acquisition of key-to-disk data entry equipment was underway in response to the increasing demand for on-line data. But due to dropping demand the number of operators was reduced, through reassignments, from 14 to eight;
- During this year the groups made increased use of on-line computer terminals to improve productivity. Major undertaking to upgrade operational documentations was aimed at simplifying procedures. Four technicians were transferred to user areas;
- Automatic plotter group produced engineering drawings for highway planning and construction projects. Simple on-line plotting facilities were also available in all regional offices for a preview of drawings before the final plot;
- System documentation library staff supported the development offices with updating systems to production;
- Computer equipment acquisition group looked after the large inventory of terminals, printers, plotters, controllers, modems, etc.



Human Resources Planning and Services Branch

Branch staff was responsible for the provision of a wide range of services including staffing, human resource planning, staff relations, human resource policy and program review, classification, occupational health/safety, employee benefits/records and staff development.

Branch objectives were primarily related to providing these human resources services to senior and line management and MTC employees in an effective, efficient and economical manner. Branch staff made representations and contributions to corporate human resource policy formulation; provided assistance and advice to managers in personnel matters; prepared human resource statistical data required by MTC and central agencies; ensured equitable compensation and an environment supportive of staff growth and development.

Staff also prepared for development in future directions to serve a changing ministry. There was an increased focus on provision of consulting services and on strategic human resource policy formation. The branch also expanded its use of technology and planned for further expansion in this area. There was also a beginning of the process of re-examining the products, services and structure of the branch itself.

Staff Relations Office

Staff managed a full range of labour relations services, including interpreting and assisting with administration of existing policies, procedures and collective agreements; and the development of strategy and MTC policies and philosophies in the labour relations area.

Major section activities included administration of the collective agreement, providing policy direction on staff relations to ministry management; co-ordination of all aspects of grievance procedure and contract administration; improving managers labour relations knowledge and skills and, participating in union negotiations. The inflation restraint board programs did result in curtailed management labour negotiations.

Staff relations personnel held extensive discussions with the union on the Kingston relocation project, a move completed in September of '83. Staff also provided increased training to line managers in staff relations.

Staffing Section

Staff initiated, developed and administered staffing policies and procedures with emphasis on equitable selection, placement and reassignment

of suitably qualified people with appropriate experience and skills required to meet the ministry's needs.

The year marked the completion of the Kingston relocation project involving the transferring and reassignment of approximately 350 employees, predominantly in the clerical and data entry classes.

For the first time, staff participated in the winter experience program and the number of students allotted for summer experience '84 tripled from the previous year. Both were funded by the Youth Secretariat.

Approximately 24 graduates were recruited for the newly re-designed three year management development program.

Section staff participated in two major inter-ministerial staffing projects: first dealing with the feasibility of the Ontario Government employing permanent part-time staff; second, a government-wide service designed to assist managers and employees with surplus reassignment and relocation counselling.

Ongoing services included staffing of permanent and temporary vacancies; information to the public about employment opportunities; and a consulting service to line managers and employees.

Classification and Pay Administration Section

Staff reviewed and classified over 850 positions as a result of major reorganization in head office and several large reorganizations in the regions and districts in the purchasing and supply and district maintenance operations areas.

Several staff were seconded to assist the Civil Service Commission in a major standards development project which will affect nearly 2,000 MTC staff. Other personnel participated in standards development projects for a number of class series, e.g., systems officers, data processing technicians, technician photographic.

High technology word processing equipment was used to produce organization charts and classification grievance reporting, resulting in cost savings and reduced production time.

Classification staff developed and presented seminars on "compensation training for line managers" and participated with the CSC in carrying out wage surveys to obtain data for salary negotiations.

Benefits and Records Administration

Section staff provided a service for the managers, employees and families of employees on pension matters and insured benefits. These also included the administration and documentation of employees regarding classification and pay changes prior to processing through the corporate integrated payroll, personnel and employee benefit system. As part of improving the administrative support supplied by the branch, staff utilized electronic word processing equipment.

Staff also co-ordinated along with the Employee Counselling Services Branch (Ministry of Government Services) a rehabilitation program to provide assistance to employees who had been absent from work for an extended period due to illness or injury.

Work-load demand increased substantially as a result of the voluntary retirement option when some 274 employees took advantage of the option — most of whom sought counselling and guidance.

Human Resources Development Office

Initiatives and Development Section

Section personnel provided consultant and research services to senior ministry committees related to human resources policy and program review and development.

Personnel were also involved in several ministry and branch studies related to the introduction of office automation and the use of new technology. They prepared reports for the ministry technology advisory committee on human resource issues related to technological change.

The section work plan focussed on identifying significant human resource internal and external environmental trends and issues likely to impact on the human resource field. This information and proposed branch strategies to deal with the issues were incorporated in the branch position and prospects paper for use by the ministry's SPC.

Staff developed a human and financial resources recording system, enabling branch managers to monitor the use of time and resources against planned operations and activities.

They were involved in conducting a major study of the ministry's present performance appraisal system. Line personnel were part of the project team.

Staff undertook a number of other studies, including an occupational analysis to define and identify management skills, plus a pilot questionnaire used to measure distribution and degree of mastery of management skills.

Planning Section

Section staff developed human resources planning processes and policies, collected and maintained relevant and current MTC employee data and provided administrative support to line managers, subcommittees and the human resources committee.

The development, marketing and implementation of the revised corporate succession planning system was a major initiative undertaken by staff. The introduction of program human resources committees to develop long-range human resources plans also resulted in a demand for increased consultative and administrative support.

In response to the need for increased human resources information, and a more flexible system, personnel initiated revisions to the computerized human resource inventory to provide multi-user access to meet each program's unique information needs.

Section staff provided for the development, co-ordination and administration of the new management development program and the ongoing management familiarization program which are directed toward the development of managers and potential managers to meet MTC's future needs.

Staff Development and Training Section

Staff provided a comprehensive program of training and development services to management and staff and administered a technical training program for MTC employees and those of Ontario municipalities. The objective was the promotion of organizational and staff growth and development, and employee competence.

Section personnel provided consulting services related to problem-solving and decision-making strategies. Courses emphasized the planning process used by MTC in preparing the strategic guidelines and operational plans.

To culminate the four-tiered MTC management training program, staff conducted management '83-'84, a senior management seminar. The theme addressed the issue of human resources strategy to capitalize on people, systems and technology.

Technical training staff accounted for the majority of the courses offered by the section. They provided co-ordination and instructional services for a variety of technical courses, including courses for municipal employees. Courses taught included road design, construction survey, traffic, and roadside maintenance. Administrative support was provided to the Ontario Good Roads Association courses conducted at the University of Guelph; the grader training program provided at four locations in the province and other courses at the OGRA Northern Road Schools.

Occupational Health and Safety Office

Staff developed MTC policies designed to meet (or exceed) the demands of the Occupational Health and Safety Act to provide a safe and healthy work environment for all MTC employees.

They continued to develop and implement health and safety training courses such as first aid, back care, and ergonomics, also providing consultative advice and expertise to managers for evaluation of health hazards.

Work-related accidents, injuries and illnesses were monitored and the collected statistical information was distributed to all concerned parties.

Other accomplishments included the computerization of the hearing conservation program. Presentations concerning the lead medical surveillance program were made to all sign shop employees, zone strip operators and some bridge crews. As well, directives were issued pertaining to the proper labelling of hazardous and/or toxic chemicals, and to the legal requirements for the wearing of safety belts.



Supply and Services Branch

Branch staff were responsible for ministry-wide policy and procedures for supply and services. They were also responsible for providing a wide range of services for head office and the Ministry of Northern Affairs (MNA) and for the central purchasing of motor vehicles, tires and petroleum products and disposal of motor vehicles and a wide variety of other items for ministries and agencies of the Ontario Government.

Tenders Section

Section staff maintained strict security over all head office contracts. Approximately 5,126 tenders were received and processed for 722 contracts while some 1,762 contractors/suppliers attended the public tender openings.

In advertising, some 373 insertions were placed to the news media regarding tender calls and public notices.

Sales of contract documents, various construction-related manuals and MTC's contract bulletin produced a revenue of \$111,900.

Service Centre Administration

Twenty-three service centres were in operation during the past year, 19 on the MacDonald-Cartier Freeway (401) and four on Highway 400.

Approximately \$4.8 million in revenue was derived. Facilities and services available on a 24-hour basis included restaurants, washrooms, public telephones, first aid, motor vehicle fuels and lubricants, emergency towing, repair services and 21 picnic rest areas.

Essential services for the physically disabled, such as parking, washrooms, restaurants, telephones, and water fountains, were available at all centres.

There were eight service centres offering propane. In addition, gasoline price indicator signs were installed at five centres, bringing the total number using the signs to 12.

Outdoor information facilities were maintained at two centres, enabling the motoring public to get information on lodging and local points of interest on a year-round, 24-hour basis. Travel information booths were operated at 18 centres, from mid-June up to and including the Labour Day weekend, by the Ministry of Tourism and Recreation.

An inspection program provided coverage on all holiday weekends and most regular weekends. The cooperation of site management and staff led to a low level of customer complaints during the fiscal year.

Eso Petroleum's proposal for their Newcastle service centre, involving both significant structural changes and improvements to the service station

layout, and the introduction of a Burger King fast food restaurant, received ministry approval. The scheduled completion date for the site work was set for June 1, 1984.

The Ministry of Agriculture and Food established Ontario fresh produce markets at two highway service centres. The advanced signing was provided by MTC. The growers who sold the produce, and the motorists buying the produce were both enthusiastic. This program is being expanded for the 1984/1985 fiscal year.

Purchasing and Supply Office

Section staff were responsible for the purchase of all construction and maintenance materials and general ministry supplies, totalling about \$65 million.

Vehicles and equipment purchasing staff acted in the purchase of vehicles and equipment through standardization of specifications and consolidated purchasing for all Ontario Government ministries and agencies. Here purchases totalled approximately \$39 million.

Stores personnel allowed MTC to take advantage of savings by bulk purchasing, also facilitating ministry operational function by having materials available for later use. It also reconditioned and stored bailey bridge

components for emergency use. Currently, there are 178 such installations in the province.

Supply section staff facilitated the disposal of all used ministry equipment, surplus material and all government motor vehicles, via public auction or tender. Sales totalled \$4.4 million. Review of field operations were conducted where appropriate.

The movable asset control system consisted of approximately 43,000 items valued at approximately \$100 million and was coordinated by this section.

Information Management Office

Staff were responsible for providing assistance to MTC and MNA in the efficient and cost-effective management of recorded information.

Information analysts provided extensive services relating to the management of documentary information, including the development of indexing and classification systems, identification and scheduling of ministry records, and the evaluation and selection of office equipment.

Over 12,000,000 records were disposed of in accordance with approved retention schedules, resulting in a cost benefit of \$128,000 in reclaimed office space and filing equipment.

Similarly, over 140,000 records were transferred to the Ontario Government Archives, ensuring the preservation of vital information. The microrecording unit filmed in excess of 1,400,000 hardcopy records or approximately eight tons of paper.

Central registry staff were responsible for the coding and indexing of correspondence received from ministry offices. During the year approximately 25,000 pieces of correspondence were coded while over 10,000 records indexed. In addition, the unit received 600 engineering plans, 5,500 legal survey plans and 2,300 survey plans and related documents to be indexed into the title record books. Approximately 12,000 information searches were conducted by registry staff with 24,000 prints of highway survey data and construction records provided to MTC staff and external agencies.

Forms management staff continued their program of progressive improvement in the design, processing and control of MTC and MNA forms. During the year a total of 307 forms were revised, 119 new forms added and 213 declared obsolete resulting in an estimated procurement savings of \$696,000. The computerized forms catalogue, containing information on the 2,400 ministry forms currently in use, will be revised during the 84/85

fiscal year to provide additional management data.

Library and information centre staff provided library and reference resources for MTC and the transportation community, acquiring all publications and subscriptions to periodicals and newspapers. They provided reference services, computer searches, inter-library loans and issued two regular publications, *Library News* and *Journal Contents*, to ensure that all clients were informed of current acquisitions and holdings.

References and information requests exceeded 20,000. The centre was also designated as the "public reading room" to comply with the prescribed open government policy and in anticipation of the proposed access to information and privacy protection legislation.

Administrative support staff provided "camera-ready" production services, arranged the printing, distributed and/or sold the 193 MTC manuals and amendments centrally controlled through the information management office. In total, over 14,000 copies were distributed to ministry offices, other government institutions and the public. In addition, staff administered the printing, update and distribution of ministry directives with almost 55,000 copies distributed during the year.

Graphic services personnel were responsible for the preparation and update of engineering indices of technical data (strip plans) on all provincial highways. In addition, they produced "camera-ready" copy for ministry forms and prepared illustrations for ministry manuals and publications.

Map area staff provided for the availability, printing, inventory, sale and distribution of all MTC and topographical maps. In excess of 325,000 were distributed or sold. The year also witnessed publication of the new Inter-City Transportation Guide and the first map in the new Ontario transportation map series.

In May, the admin. improvement section staff were transferred from the special services office. As such, they assumed responsibility for administration of the ministry's convenience and engineering photocopyers and for a wide range of services related to the acquisition, implementation, development and inventory of word processing systems and related office automation equipment. During the year, they conducted 33 feasibility studies (18 word-processing study/reviews and 15 photocopier study/reviews) for new system acquisitions and enhancements to existing systems. Personnel also performed ongoing consulting services relative to applications identification and development.

Graphic Services Office

Staff provided a wide variety of reprographic, offset printing and duplicating services in support of all ministry programs.

More than 22,500 requests for reprographic services were processed for the provision of high quality, black and white and colour reproductions using photographic, diazo, screen printing and rapid turn-around photocopy methods. Approximately 15 million impressions were produced in the offset reproduction facility. Recoveries were in excess of \$781,000.

Administration of the MTC and MNA identification card issuing program was also a responsibility.

Special Services Office

Accommodation Services

Unit staff were responsible for the designing of various MTC offices, including ministry space entitlements for submission to MGS for Management Board.

They also liaised with MGS on the relocation of D&V staff to Kingston re: block plans and building construction plans while various lease negotiations were carried out with MGS.

Instrument Repair and Test Shop

Personnel operated the only facilities in the ministry for repairing, calibrating and environmentally testing highly specialized and very precise engineering instruments such as theodolites reading directly to one second of arc, first and second order levels, other miscellaneous survey equipment, traffic counting recorders, solid state timers, detectors, transceivers, decoders, 170 microprocessors, monitors, switch packs, isolators, relays and other miscellaneous electronic equipment pertaining to traffic signals control.

They were also responsible for the repairs and the acquiring of new transceivers (walkie-talkies); for acceptance testing all the 170 microprocessor equipment for controlling traffic signals in the ministry, including software and hardware; to all region, districts and head office. A charge back system was implemented with recoveries of approximately \$180,000.00.

Special Services Operations

Personnel of postal operations was responsible for incoming and outgoing mail handling, Purolator Courier mail service to all regional and district offices and the use of Priority Post Courier. They were also responsible for teletype centre activities, as well as the operation of the mailmobile service throughout the Downsview complex.

Volumes of mail reached were: outgoing mail 1,556,124; incoming mail 2,701,617; teletype messages 195,197.

Material Control personnel were responsible for handling moves and office realignments, delivery of supplies, furniture and equipment etc., processing orders and invoices, arranging for furniture and equipment repairs on a call-as-needed basis. In addition, they provided expertise in the selection of appropriate types of furniture and equipment for client offices.

Volumes included: moving realignments — by contract mover, 43; by staff, 90.

Receiving/distribution included: shipments received: 7,743; pieces processed: 48,194; orders processed: 998; service calls: 2,658; and invoices processed: 3,207.

Telecommunications Services Section

Projects undertaken included the completion of the Sault Ste. Marie radio system with a total cost for the system approaching \$1,000,000. Savings of more than \$50,000 in the development were achieved by the use of multicoupler devices permitting the use of a single antenna at most of the repeater tower sites.

Mobile radio system design work and specifications were largely completed for Ottawa and Kingston district replacement radio systems with total costs for both systems in the order of \$855,000.

Staff and the Ministry of Environment discussed the joint use, on a limited basis, of the MTC radio systems throughout the province and a provisional agreement was reached

with regard to the number of mobile radio units which MTC would permit to be added to the systems and the type and volume of traffic to be handled. The number of MoE mobile radio units was limited to 120.

Estimated savings in the joint use of the MTC radio systems with MoE will be approximately \$7,000,000 based on the cost of the MoE installing a province-wide system of their own.

In the field of telephone communications, the systems designed to accommodate the move of drivers and vehicles operations to Kingston were completed. This work included the provision of data, telephone services and a "hot line" centre at 118 Princess St., Kingston.

The use of the "hot line" centre resulted in savings of \$20,000 per month over a period of five months.

Analysis of the automated call sequencing equipment in driver control, driver licensing and Downsview road information office determined that a savings of more than 50 man-years was achieved over the last five years since the introduction of the equipment.

A new telephone switchboard and system was installed in Owen Sound district office utilizing the Mitel 200 switch.

Four digital voice-recording-and-answering telephone machines were installed to improve road report information to the general public in the areas of Peterborough, Sarnia, St. Catharines and Barrie and to economize in the use of WATS lines which were heavily used in these areas for contact with regional offices for road information.

Telecommunications staff were involved with MGS in a telephone study encompassing Metro Toronto and vicinity with a view to the installation of a digital telephone switch, or switches, to serve Ontario Government ministries. It was nearing completion by the end of March.

Progress was made in the investigation of alternative methods in the receipt and transmission of traffic presently handled by teletype. The most promising in terms of economy and function was the use of fairly simple terminals working into the electronic office services offerings of CN-CP Telecommunications.

Telephone system changes were carried out at ministry offices province-wide, mostly due to organizational and personnel changes. The bulk took place in the Downsview and Queen's Park areas.

The use of teleconferencing showed a steady but modest increase with an average of 13 per month.





Chief Accountant's Office

Staff was responsible for all functions usually associated with a large accounting organization: payroll, accounts payable and receivable, maintenance of financial records, preparation of financial statements and liaising with the Ministry of Treasury & Economics.

There were three key areas:

Expenditure Office

Staff developed operational policies and procedures related to accounts payable, expense accounts, payroll and subsidies. It maintained and utilized procedures for the issuing and distributing of payroll cheques, processing of accounts payable data for the issuing of treasury cheques and provision of expenditure information.

Personnel monitored and coordinated policies, procedures and budgets in relation to employee relocation entitlements.

Personnel also monitored expense account data to ensure compliance with regulations and the provision of statistical information.

Revenue Control Office

Staff developed operational policies and procedures related to revenue accounting and cost sharing.

They processed and recorded accounts receivable data and reconciled the concentrator account for all local payments and advances with treasury.

They deposited all revenue received to the consolidated revenue fund and all refund of expenditure to treasury.

Personnel also reconciled all monies deposited in the direct deposit system by drivers and vehicles agents and established accounts receivables for shareable agreements made by the ministry, compiled, prepared and distributed all statistical financial documents and produced and coordinated the daily operations of all financial and statistical reports.

Accounting and Administration (Head Office)

Staff provided a regional accounting function for all head office cost centres and MTC agencies as well as the Ministry of Northern Affairs (MNS).

Budgetary Planning and Control Office

Personnel were responsible for acting as a liaison with Management Board of Cabinet, Ministry of Treasury and Economics, other central agencies and planning, evaluating, developing, controlling and analysing MTC's budget which consists of three sections:

Section staff were primarily involved in acquisition of resources to produce MTC's annual expenditure budget. They coordinated preparation of the expenditure and revenue estimates submission, represented the ministry throughout the resources allocation process and developed MTC's request for personnel and financial requirements in the ensuing fiscal year.

Analysis staff monitored expenditures and revenues, identified deviations and developed financial options for resolution. They also provided support to program managers in the in-year management of financial resources.

Evaluation personnel coordinated integration of the MBR concept with MTC's existing management processes.

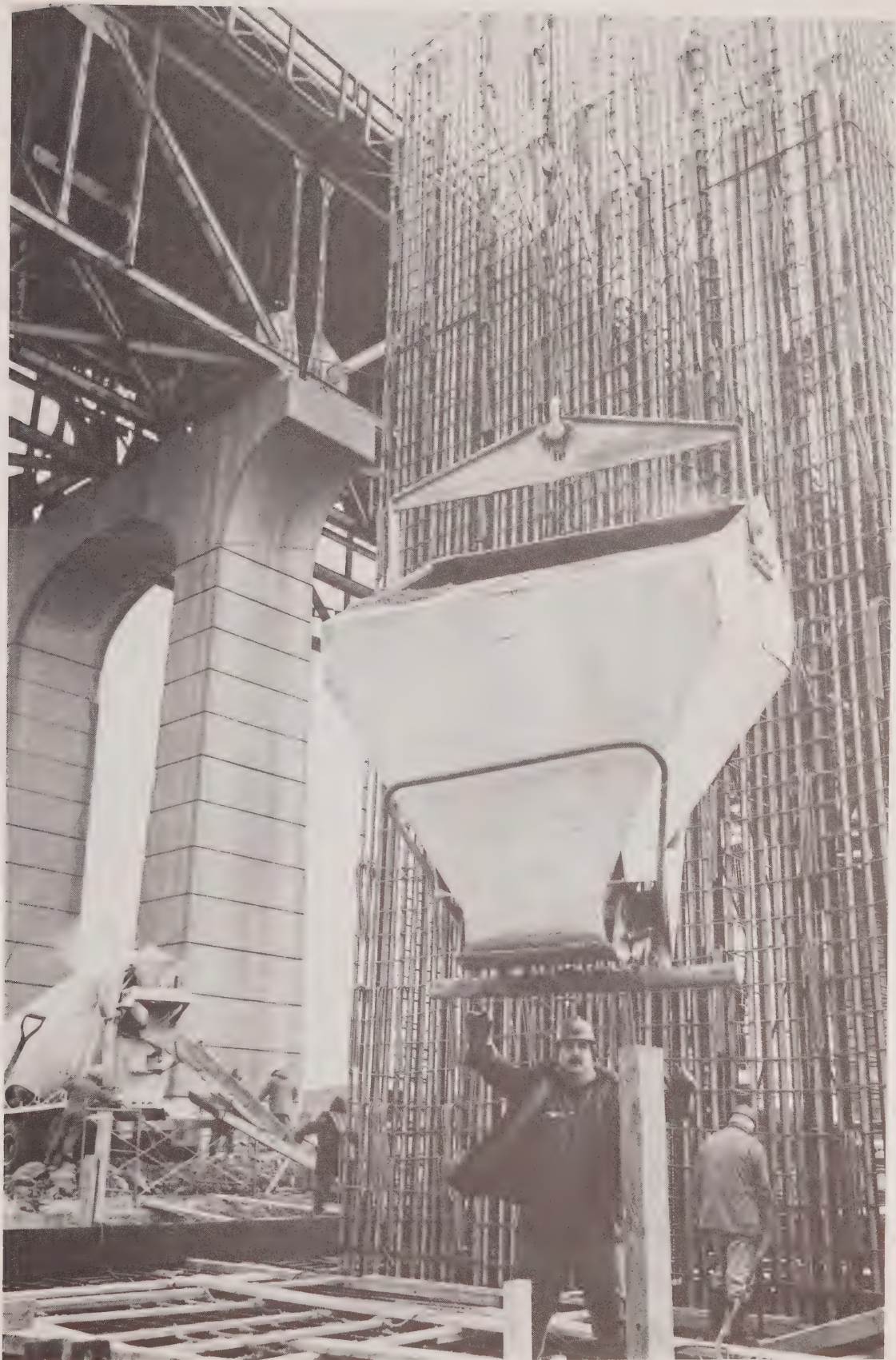
Financial Systems Office

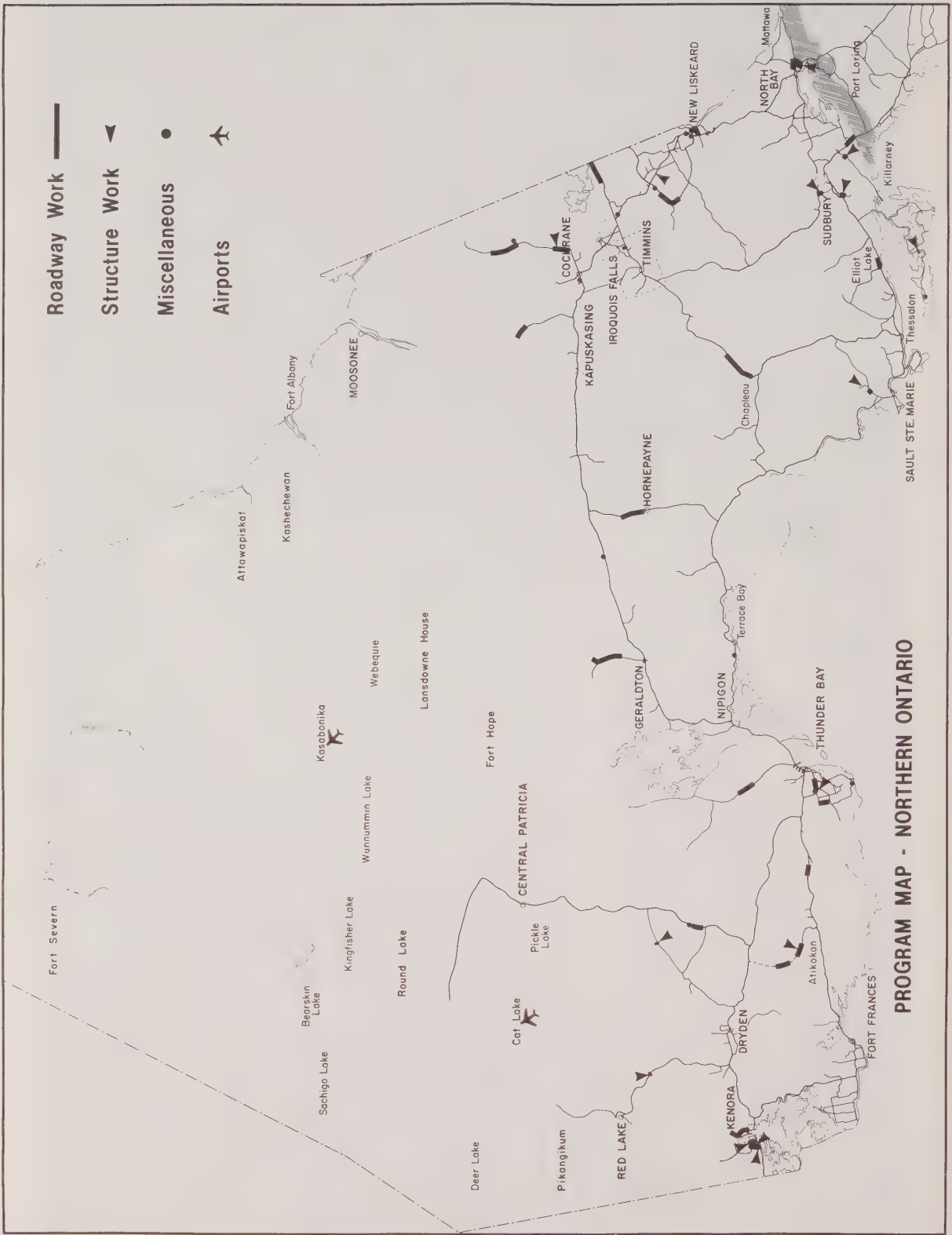
Personnel provided expertise in both computer and manual financial systems processes to aid managers in the effective management of financial resources. They were responsible for the introduction and upgrading of financial systems while continuing to maintain a high degree of efficiency within current systems.

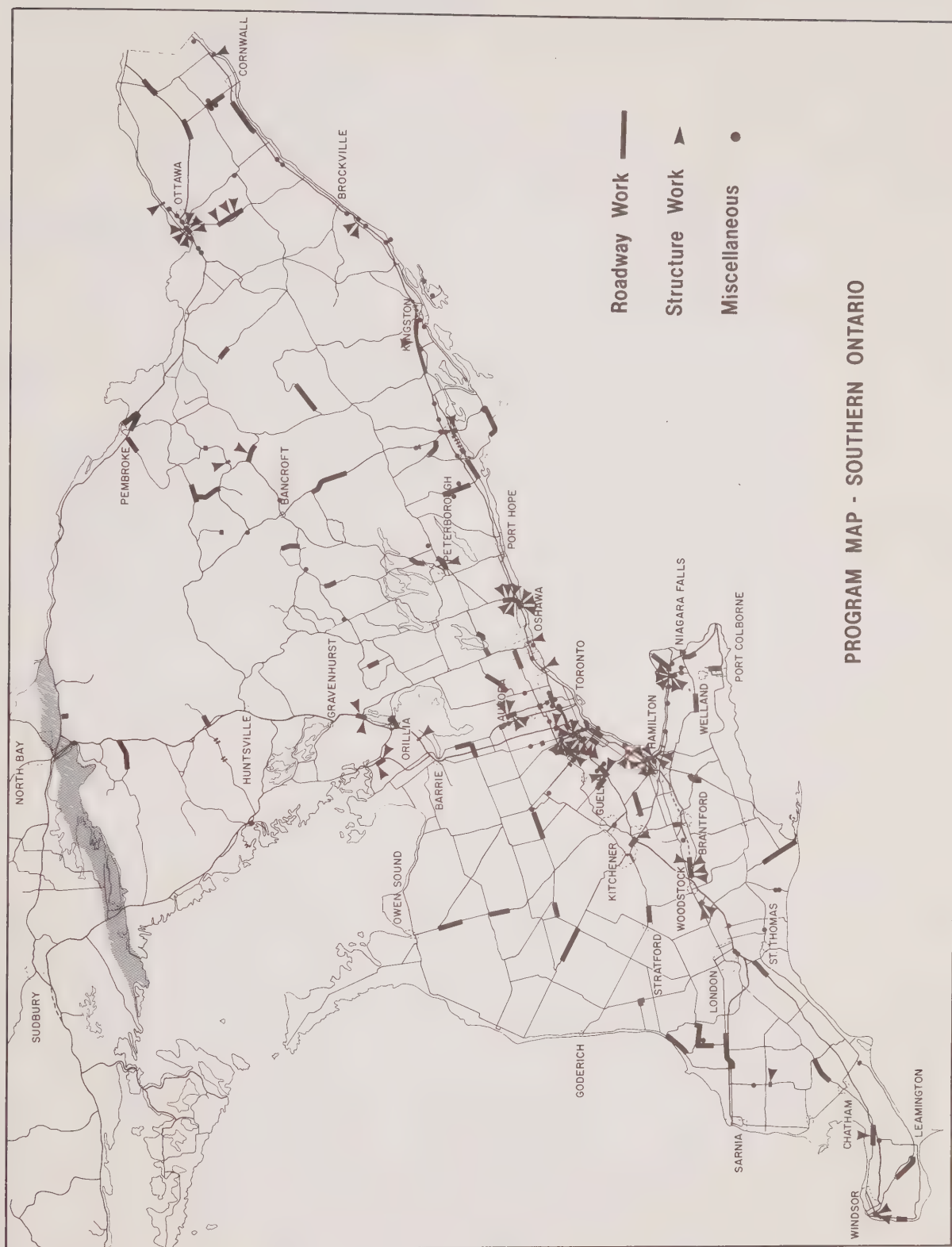
This provided financial analysis and evaluation for in-year monitoring and control, performance assessment, financial information and reporting for managers.

Qualification Control Office

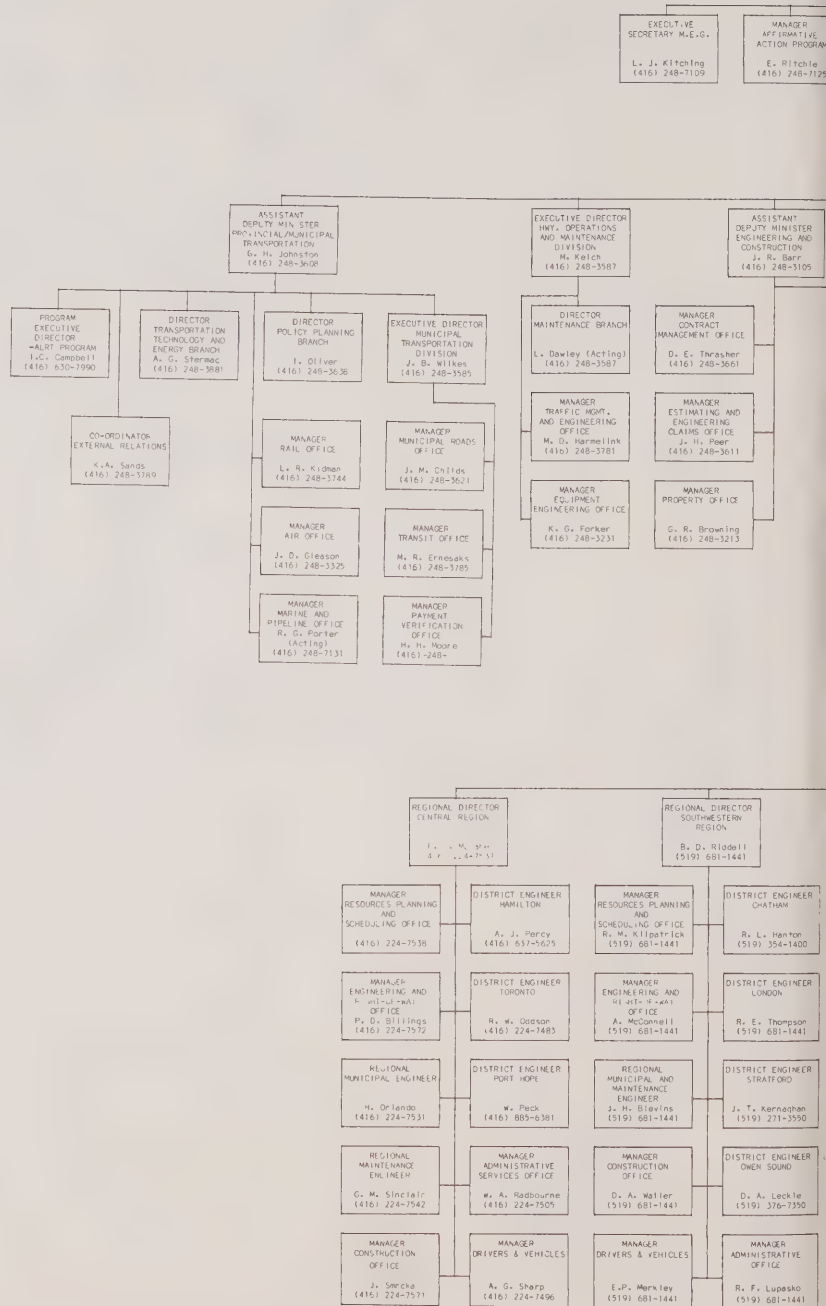
Staff maintained and used procedures to ascertain contractors' abilities to meet ministry pre-qualification standards, initiating, developing and implementing improvements in the pre-qualification process. There are now in excess of 360 contractors qualified with the ministry.

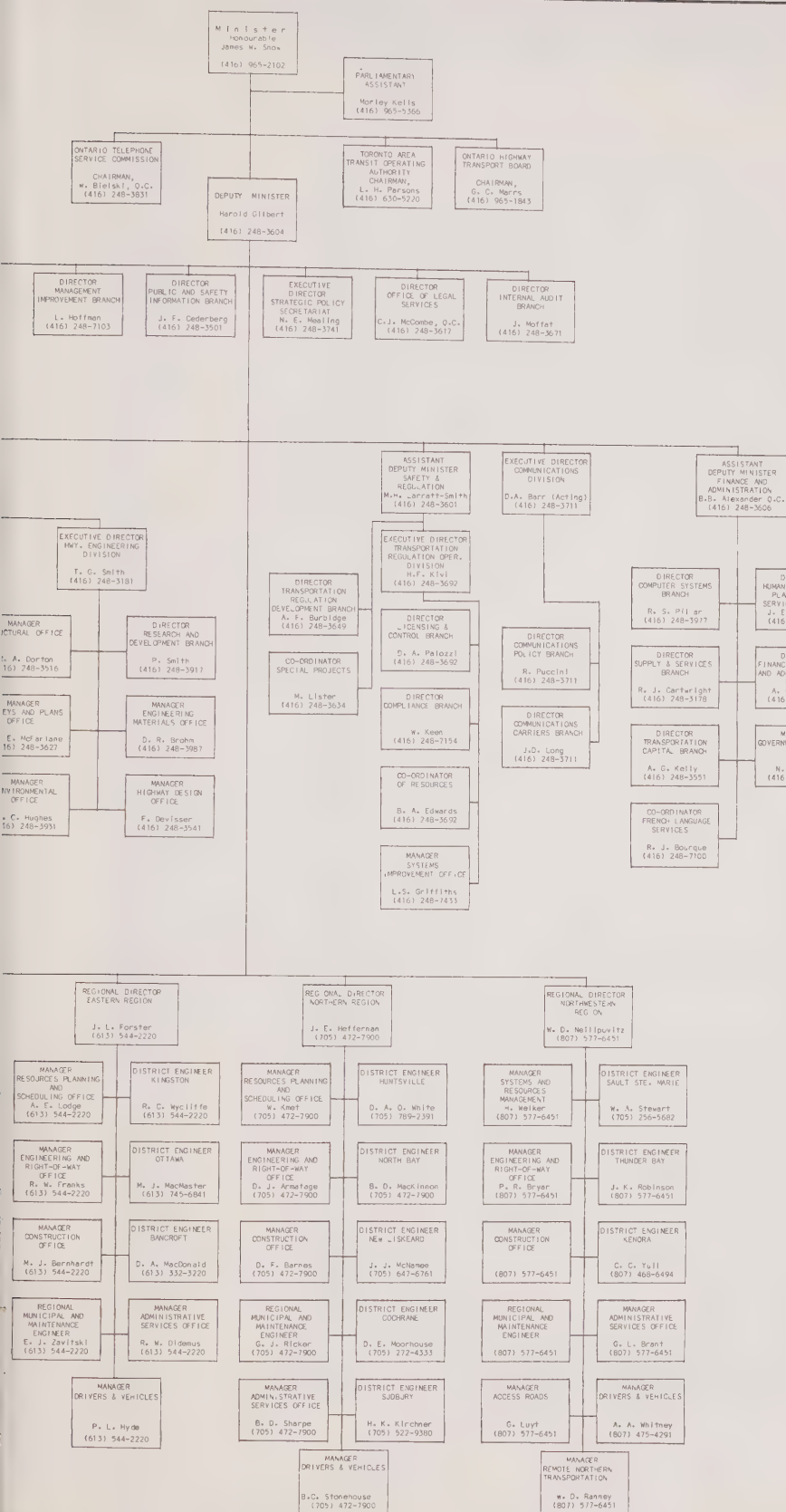






PROGRAM MAP - SOUTHERN ONTARIO





CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1982	1983
7	Fail to register a vehicle	5,460	28,242
9(1)	False statement	59	101
9(2)	Fail to notify new address	2,363	2,376
10	Fail to have number plates	14,623	3,593
12	Violations as to number plates	2,188	2,343
13	Improper use of number plates	837	929
18(1)	No driver's licence or improper class	20,316	17,590
18(3)	Driving in breach of condition	1,053	2,164
19	Fail to produce operator's licence	26,026	24,555
21(1) a,b,c,d,e	Driver licence violation	620	581
22	Driver suspended in Ontario — Licence out-of-Province	26	14
23	Operation of motor vehicle by person under 16	117	12
24	Driving motor assisted bicycle under 16	0	0
30(2)	Unlawful possession of permit	4	5
30(3)	Unlawful possession of licence	135	136
35	Driving while licence is suspended H.T.A.	10,118	12,761
41	No garage licence	0	72
42	Record of wrecked vehicle violation	5	12
44	Improper light violations	12,639	12,666
46	Defective brakes	1,591	1,822
48	Faulty equipment (mirror, windshield, etc.)	531	450
52(1)	Defective — improper tires	68	1,204
52(2)	Improper attachment on wheels	7	10
55(1) a & b	Driver view obstructed	188	183
55(2)	Colour-coating obstructing view	152	99
55(3)	Obscured interior colour-coated windows	406	336
56(1) a & b	Windows obstructed	1,307	1,215
57	Excessive noise/smoke/fumes	15,112	12,814
58	No slow-moving-vehicle signs	75	74
61(2)	Radar warning device prohibited	731	630
62	Fail to have proper trailer attachments	1,033	1,104
65(2)	Unsafe vehicle	5	2
65(3)	Failing to submit to vehicle inspection	1,276	1,239
67	Drive unsafe vehicle	2,944	2,454
68(1)	Operate vehicle — fail to display device	847	698
69	Affix vehicle inspection sticker not MTC issue	4	4
71	Certificate of mechanical fitness violation	30	5
87	No name of owner on commercial vehicle	1,040	481
88	Drive/ride motorcycle no safety helmet	1,861	1,340
90(2)	Remove/modify/inoperative seat belt assembly	1,194	1,298
90(3)	Failure/improper use seat belt assembly — driver	74,583	85,646
90(4)	Passenger — failure to ensure seat belt use	6,159	6,540
90(6)	Driver — failure to ensure passenger seat belt use	841	2,447
92(1)(2)(5)(6)(9)(10)	Excessive vehicle width/length/height	1,748	1,268
93(7)	Special permit violation	471	403
93(1)	Overload in excess of permit	8	5
93(2)	Fail to produce commercial ownership permit	27	8
93(4)	Spring Regulations — Overload	10	0
94(1 & 2)	Overhanging load/improper loading	2,004	2,049
98(1) (1b)	Overweight — tires	91	6
99(1)a	Overweight — Single axle (single tire)	45	42
99(1)b	Overweight — Single axle (dual tires)	1,806	1,194
99(1)c	Overweight — Dual axle	7,237	5,337
99(1)d	Overweight — Triple axle	203	164
99(2)	Overweight — Dual axle (single tire)	3	4
99(3)	Overweight — Triple axle (single tire)	30	1
99(4)	Overweight — Single front axle (no verification)	126	35
99(6)	Overweight — Single front axle (exceed rating)	26	14

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1982	1983
100(a)	Overweight — Two axle group	79	68
100(b)	Overweight — Three axle group	175	102
100(c)	Overweight — Four axle group	21	43
101(1) (abc)	Gross vehicle overweight	2,094	1,622
101(2)(3)	Fail to produce/violate authority	12	16
102(3)	Overweight during freeze-up	151	318
103	Overweight on axle Class B highway	7	14
104(1)	Overweight in excess of permit	4,094	3,056
104(2)(5)	Fail to carry/produce permit	1,647	229
104(7)(8)	Overweight — March/April	0	3
109	Speeding 50 km/h or more over the limit	8,464	3,498
109	Speeding more than 29 less than 50 km/h	82,276	81,276
109	Speeding more than 15 less than 30 km/h	263,688	250,193
109	Speeding under 16 km/h	420,863	419,590
111	Careless driving	17,839	17,003
113	Unnecessary slow driving	186	146
114	Fail to obey signal of police officer	270	226
114(3)	Drive vehicle on closed road	217	181
115	Fail to yield right of way	129	178
116	Fail to stop at through highway	56,946	55,537
118	Fail to obey yield sign	586	584
119	Fail to yield — from private road	6,995	6,580
120	Pedestrian crossover violation by driver	4,372	4,195
121(1)	Improper right turn	40	9
121(2)	Improper right turn at intersection	2,619	3,031
121(3)	Improper right turn — multi lane	3,418	348
121(4)	Improper left turn — across path of approaching vehicle	4,562	5,589
121(5)	Improper left turn at intersection	3,723	5,960
121(6)	Improper left turn — multi lane highway	1,469	900
122(1)	Fail to signal for turn	13,606	14,127
122(2)	Fail to signal-moving from parked position	3,639	3,905
122(4a)(4b)	Improper manual signal	9	5
122(5)	Improper directional signal	37	35
122(6)	Improper use of signaling device	73	71
122(7)(7a)(7b)	Fail to signal	135	114
123	Prohibited U-turns	182	159
124(5)	Disobey red signal light	50,708	48,122
124(7)	Disobey amber light	11,855	9,516
124(8)(9)(10)(11)	Flashing red-amber-green arrow	2,946	2,483
124(12)	Fail to give right-of-way to pedestrian	922	922
124(13)	Prohibited turn	29,583	26,679
124(25)	Disobey traffic signal	5	1
125(3)	Disobey portable lane control signal — red light	94	61
125(4)	Disobey portable lane control signal — amber light	39	34
126	Drive right side of multi-lane highway	227	173
127(1)(2)	Fail to share the road	2,183	1,915
127(3)	Fail to move to right	194	138
127(4)	Vehicle or horsemen overtaking others	461	443
127(5)	Horsemen or vehicles overtaking bicycles or tricycles	50	51
127(6)	Improper passing	38	16
127(7)(a)(b)	Improper passing	1,093	1,125
128	Driving left of centre of highway	1,498	1,292
129(1)	Passing to right of vehicle	69	89
129(2)	Unsafe passing to the right	3,012	3,227
130(1)	Fail to obey signs posted on paved shoulder	932	551
132	Wrong way on a one-way street	6,194	5,619
133(a)	Unsafe lane change	5,734	6,134
133(b)	Drive in centre lane of three lane highway	161	169

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1982	1983
133(c)	Fail to drive in slow moving traffic lane	4,473	4,695
135(a)(b)	Improper driving on divided highway	643	648
135(a)	Backing on highway	604	182
136(1)	Following too closely	15,236	16,021
136(2)	Following too closely in commercial vehicle	386	315
137(1)	Fail to yield to fire department vehicle, etc.	360	280
137(2)	Following a fire department vehicle	15	15
140	Crowding driver	743	421
141	Fail to stop for crossing (signal)	161	183
142	Drive through under or around railway barrier	190	182
143	Improper opening of vehicle door	279	233
144(1)	Improper approach or passing a stopped streetcar	147	168
144(2)	Pass streetcar on left side	34	38
145	Improper driving when approaching animals	2	25
146	Fail to use passing beam	887	987
147	Improper parking on highway	675	546
147(8)	No warning lights on commercial vehicle	22	11
147(9)	No flares	55	117
147(10)	Vehicle interfering with traffic	593	486
148	Racing	112	66
150(b)	Failure to stop school bus or public vehicle at railway crossing	26	18
151(5)(5a)(5b)	Fail to stop for school bus	2,715	1,702
151(6)	School bus: Fail to actuate signals	20	21
151(9)	Unlawful use of red signal lights on school bus	7	4
151(11)	School bus: Failure to cover signals and signs	21	14
152(3)	Fail to obey school crossing stop sign	119	66
156	Littering highway	1,175	895
158(2)	Disobey legal sign	226	4,567
159(2)	Fail to obey a direction sign	4,222	36
173	Fail to report an accident	4,144	4,117
174	Fail to remain at the scene of an accident	2,927	2,576
175	Fail to report damage to highway property	698	657
189(a)	Fail to stop for police	631	808
	Others	17,059	1,786
	TOTAL	1,304,637	1,271,334

SUMMARY OF CONVICTIONS

Criminal Code	48,663	47,966
Highway Traffic Act	1,304,637	1,271,334
Regulation H.T.A.	10,456	5,208
Municipal Bylaws	27,469	31,210
Motor Vehicle Accident Claims Act	6	0
Compulsory Automobile Insurance Act	21,444	20,482
Public Commercial Vehicles Act	2,387	600
Public Vehicle Act	25	0
Motor Vehicle Transport Act	1,027	624
TOTAL	1,416,114	1,377,424

REGULATIONS UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1982	1983
484	School bus violation	40	19
469(14)(15)			
(16)(17)	Number plate violation	2,416	395
462(4)	Motorcycle violation	326	195
462(13)	Classified licence violation	475	34
462(19)	Fail to notify name/address change	2,318	1,958
462(20)	Fail to sign licence	844	683
469(21)	Only single beam headlight	10	11
477(4)	Improper parking	414	109
494(2)	Prohibited use of studded tire	158	52
	Others	3,455	1,752
	TOTAL	10,456	5,208

CONVICTIONS REGISTERED UNDER THE CRIMINAL CODE (CANADA)

SECTION	OFFENCES	1982	1983
203	Criminal negligence causing death	17	15
204	Criminal negligence causing bodily harm	9	10
233(1)	Criminal negligence	122	145
233(2)	Fail to remain	1,740	1,466
233(4)	Dangerous driving	1,435	1,326
234	Drive ability impaired	19,769	19,321
234.1	Roadside	524	668
235(2)	Fail to take breathalyzer	3,387	3,551
236	Over .08 alcohol	21,660	21,464
	TOTAL	48,663	47,966

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

SECTION	OFFENCES	1982	1983
2(1)	Drive or permit to drive unregistered vehicle	297	220
2(2)	Fail to register vehicle	0	0
2(3)	Fail to provide evidence of issue of permit (no plate)	3	3
2(7)	Fail to display registration number	218	129
2(8)	Fail to display evidence of permit	420	376
3(1)	Make false statement	1	0
3(2)	Fail to notify change of address	3	0
3(3)	Fail to notify change of ownership	35	14
4	(Plate) — Registration number obstructed	2	3
4(2)(a)(b)	Use defaced or altered plates	0	0
4(2)(c)	Improper plates	0	0
5	Drive on prohibited highway	90	65
6(2)	Drive in area not designated	0	0
7	Improper crossing of Highway	8	5
8(1)(2)	No operator's licence driving along/across Highway	165	102
11(1)	Operate/permit operation uninsured vehicle	270	197
11(2)	No insurance	11	13
11(3)	Fail to produce evidence of insurance	61	38
11(4)	Produce false evidence of insurance	0	2
12(1)	Fail to report collision	26	13
12(2)	Police officer fail to forward report of accident	0	0
13(1)	Speeding	44	29
14	Careless driving	61	39
15(1)	Fail to produce licence	68	65
16	Remove device	2	3
16(1)	Improper muffler	0	1
17	Towing on serviced roadway prohibited	2	8
18	No helmet	208	215
25(3)	Disobey signs on highway or public trail	38	11
	Others	41	8
	TOTAL	2,074	1,559

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

SECTION	OFFENCES	1982	1983
2	Disobey police officer	12	5
3	Fail to yield to vehicle on right	3	1
4	Disobey sign	8	5
5(1)(b)	Fail to yield — from adjoining property	5	1
5(2)	Improper crossing of roadway	0	0
6(3)	Improper left turn	0	1
7(1)	Fail to signal	2	0
7(2)	Fail to signal from stop position	2	0
7(3)	Improper signal	0	0
7(4)	Fail to signal stop	0	0

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

8(a)	U-turn no clear view	1	0
8(b)	U-turn railway crossing	0	0
8(c)	U-turn on hill no clear view	0	0
9	Disobey traffic signal light	3	0
10(1)	Fail to share roadway	8	1
10(2)(b)	Passing when roadway not clear	0	0
11	Drive left of centre	0	1
12	Pass on right — not in safety	2	1
13	Following too closely	2	1
14(1)	Fail to stop at railway crossing	0	0
14(2)	Cross railway improperly	0	0
15(1)(a)	Park on roadway	0	0
16	Speeding	0	0
17	Improper or no lights	31	17
19(a)	Drive on Kings Highway (prohibited)	0	0
	Others	0	24
	TOTAL	79	58

CRIMINAL CODE OF CANADA (MOTORIZED SNOW VEHICLES)

SECTION	OFFENCES	1982	1983
233(2)	Fail to remain	0	0
233(4)	Dangerous driving	0	0
234	Impaired Driving	9	5
235(2)	Fail to take breathalyzer	1	0
236	Over .08 alcohol	3	9
	TOTAL	13	14

MUNICIPAL BYLAWS (MOTORIZED SNOW VEHICLES)

SUMMARY OF CONVICTIONS (MOTORIZED SNOW VEHICLES)

Motorized Snow Vehicles Act	2,074	1,559
Criminal Code of Canada	13	14
Regulations	79	58
Bylaws	0	0
TOTAL	2,166	1,631

SUSPENSIONS

COURT ORDERED SUSPENSIONS H.T.A.	1982	1983
Careless driving	329	331
Speeding over 30 mph (50 kmh)	237	207
Racing	13	6
Fail to remain	123	91
Others	259	455
TOTAL	961	1,090

MANDATORY SUSPENSIONS H.T.A.		
Drive while licence is suspended (Section 35)	9,013	12,602
Others	0	0
TOTAL	9,013	12,602

DEMERIT POINT SYSTEM SUSPENSIONS		
6 & 15 demerit point accumulation	13,019	19,565
Fail to attend interview	912	916
As a result of interview	1,121	1,551
TOTAL	15,052	22,032

DISCRETIONARY SUSPENSIONS (H.T.À. — SECTION 30)

Medical or physical condition	812	1,035
Fail to file medical report	2,234	2,360
TOTAL	3,046	3,395

SUSPENSIONS

SUSPENSION FOR:

Motor Vehicle Accident Claims	1,410	4,316
Failure to pay judgment	1,171	1,384
Default in payment of traffic fine	76,507	63,657
TOTAL	79,088	69,357

MANDATORY SUSPENSION H.T.A. FOR CRIMINAL CODE OFFENCES

Criminal negligence	147	154
Dangerous driving	1,424	1,198
Impaired	19,495	18,816
Failure to provide breath sample	3,347	3,408
Blood/alcohol .08	21,269	20,832
Fail to remain at scene	1,752	1,385
Fail to provide (RDSI)	500	627
TOTAL	47,936	46,420
TOTAL OF ALL SUSPENSIONS	155,096	154,896

DEMERIT POINT SYSTEM

1982 1983

DRIVER IMPROVEMENT ACTIONS

Advisory letters issued (Probationary)		44,238
(Non Probationary)	129,104*	125,390
Interviews conducted	37,016	29,635

SUSPENSIONS

SUSPENSIONS

Drivers who reached suspension level through point accumulation (15 points)	5,498	5,917
Drivers who reached suspension level through point accumulation (6 points)	6,843	13,078
Drivers who reached suspension level through point accumulation — (Second 15 point accumulation)	678	570
Drivers suspended for failure to attend interview	912	916
Drivers suspended as a result of unsatisfactory interview	1,121	1,551
Total suspensions under point system	15,052	22,032

DRIVER MEDICAL REVIEW

Total Cases Reviewed	86,782	85,813
Satisfactory	84,709	84,175
Unsatisfactory reports as to class	1,162	479
Totally unsatisfactory	911	1,159
New Medical Waiver Programme (Effective March 1981)		
Waivers Granted	203	221
Waivers Denied	35	16

DRIVER OPTOMETRICAL REVIEW HIGHWAY TRAFFIC ACT

Total Cases Reviewed	5,824	8,463
Satisfactory vision reports filed	2,697	4,550
Drivers required to wear prescribed lenses while driving — no previous restriction	2,920	3,528
Unsatisfactory vision reports	207	385

* 129,104 is Probationary plus Non Probationary letters issued

Driver Improvement Statistics – 1983 Summary Sheet

	1981	1982	1983
NUMBER OF LICENCE DRIVERS IN ONTARIO	5,123,177	5,247,177	5,380,259
CONVICTIONS RECORDED IN RESPECT TO THE OPERATION OF:			
Motor Vehicles	1,412,202	1,416,084	1,377,424
Motorized Snow Vehicles	1,182	2,165	1,631
TOTAL	1,413,384	1,418,249	1,379,055
TOTAL DRIVER LICENCE APPLIED	136,539	155,096	154,896
MEDICAL AND OPTOMETRICAL REVIEWS CONDUCTED	93,833	92,606	94,276

Trends in Motor Vehicle Accidents Death and Injury Rates Over the Period 1974-1983

Between 1974 and the end of 1983, Ontario's population and the number of licensed drivers, motor vehicle registrations and motor vehicle accidents (with the exception of the years 1976, 1978, 1980, 1982 and 1983) were all on the rise. During the past ten years, traffic deaths reached a high of 1,800 in 1975 and declined to a low of 1,138 in 1982 which is the lowest annual fatality total since the year 1958 when 1,112 persons were killed.

In the past year, the number of deaths increased 5.8% from the 1,138 deaths in 1982 to 1,204 deaths in 1983. The population grew from 8.71 million to 8.82 million. The death rate per 100,000 population increased to

13.7 from 13.1 last year. The death rate over the past ten years ranges from 21.9 to 13.1. The 1982 death rate of 13.1 is the lowest since the year 1944 at which time the population was 3.96 million and the death rate was 12.6 per 100,000 population.

There was a slight decrease in the number of persons injured, from 92,815 in 1982 to 91,706 this year. The 1983 injury rate per 100,000 population decreased to 1040.2 from 1067.0 in 1982.

Last year, the number of motor vehicle accidents reported totalled 181,999 a decrease of 3.2% against the 1982 total of 187,943. there were increases of 4.5% in fatal accidents and 5.8% in persons killed. The personal

injury accidents and persons injured decreased 0.4% and 1.2% respectively.

The motor vehicle accident rate per one million kilometres travelled this year remained the same as last year at 2.8 and the fatal accident rate per 100 million kilometres travelled increased from 1.5 to 1.6. The death rate per 100 million kilometres travelled increased from 1.7 in 1982 to 1.8 this year. The 1983 death rate of 1.8 is the second lowest since 1955.

The number of kilometres driven in 1983 was estimated at 65,358,842,000 a decrease of 0.6% from the 1982 figure of 65,750,705,000.



MINISTRY EXPENDITURE BY HIGHWAY

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
2	Lancaster-Windsor	6,171,679	4,468,729
3	Fort Erie—Windsor	2,035,175	2,507,232
4	Port Stanley—(Creemore)	447,287	1,432,887
5	Toronto—Paris	645,517	1,097,024
6	Hwy. 24—Tobermory	3,635,539	2,877,390
7	Ottawa—Sarnia	15,537,928	5,034,369
7A	Hwy. 115—Hwy. 12 (Manchester)	3,047,389	304,064
7B	Peterborough—Chemung Corners	14,908	93,601
8	Winona—Goderich	1,787,360	871,850
9	Hwy. 11—Kincardine	25,000	1,178,229
10	Port Credit—Owen Sound	675,393	1,718,293
11	Toronto—Rainy River	25,751,393	11,121,931
11B	At New Liskeard	50,963	78,586
12	Whitby—Midland (7)	618,122	1,003,320
14	Bloomfield—Marmora	783,731	338,129
15	Kingston—Carleton Place	11,680	629,992
16	Johnstown—Ottawa	4,237,369	454,482
17	Quebec Boundary—Manitoba Boundary	12,363,894	11,088,276
17B	At North Bay	—	6,084
18	Leamington—Windsor	123,771	325,095
19	Port Burwell—Tralee	329,691	683,007
20	Niagara Falls—Hamilton	2,419,805	492,907
21	Hwy. 3 (Morpeth)—Owen Sound	781,923	1,559,674
22	London—Hwy. 7	444,476	261,615
23	Hwy. 7—Hwy. 9 Teviotdale	455,434	573,909
24	Hwy. 59—Collingwood	33,894	1,245,417
24A	Paris—Galt	—	48,361
25	Oakville—Hwy. 89	2,186,374	765,323
26	Barrie—Owen Sound	82,151	704,346
27	Toronto—Penetanguishene	2,655,459	1,116,030
28	Port Hope—Bancroft	1,643,558	1,113,041
29	Brockville—Arnprior (15)	10,871	519,503
30	Brighton—Havelock	1,621,244	288,894
31	Morrisburg—Ottawa	204,989	464,555
32	Gananoque—Hwy. 15	1,842	91,504
33	Kingston—Stirling	83,663	630,054
34	Hwy. 2 (Lancaster)—Hawkesbury	56,317	451,302
35	Hwy. 401 (Newcastle)—Dwight	873,260	1,014,986
35A	Fenelon Falls—Hwy. 35	—	19,352
36	Burleigh Falls—(Hwy. 7)	12,100	416,754
37	Belleville—Hwy. 7 (Actinolite)	12,336	211,667
38	Kingston—Hwy. 7 (N. of Sharbot Lake)	8,905	376,005
40	Blenheim—Sarnia	127,291	518,362
41	Napanee—Pembroke	11,985	1,066,710
42	Brockville—Westport (29)	1,291	254,879
43	Alexandria—Perth	3,361	956,242
44	Hwy. 17—Hwy. 29 (Almonte)	—	78,216
45	Cobourg—Norwood	32,904	318,594
46	Hwy. 7 (E. of Manilla)—Bolsover	—	154,123
47	Hwy. 48 (N. of Hwy. 7)—E. of Hwy. 12	—	323,080
48	Toronto—Hwy. 35 (Coboconk)	5,774	1,012,871
49	Picton—Hwy. 401 (W. of Desoronto)	171	114,361
50	Toronto—Hwy. 89	979,478	530,475
51	Rondeau Prov. Park—Jct. Hwy. 3	—	50,865
52	N. of Hwy. 97S—Hwy. 2	10,893	193,502
53	Hamilton—Hwy. 2 (Eastwood)	13,547	385,177
54	Cayuga—Cainsville	39,744	452,526
55	Hwy. 401—Niagara	2,077,169	219,953
56	Jct. Hwy. 3—Jct. Hwys. 53 & 20	—	190,072

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
58	Port Colborne—St. Catharines	1,475,290	373,921
58A	Port Colborne (Hwy. 58 to Jct. Hwy. 14)	—	49,137
59	Long Point—Shakespeare	3,147	633,343
60	Hwy. 17 (W. of Renfrew)—Huntsville	53,978	1,340,375
61	International Bdry. —Thunder Bay	181,758	259,781
62	Hwy. 14 (N. of Belleville)—Pembroke	2,654,562	1,254,603
63	North Bay—Quebec Border	1,375,452	372,460
64	Sturgeon Falls—Hwy. 11	84,078	773,309
65	Quebec Border—Matachewan	782,456	565,426
66	Quebec Border—Hwy. 65	1,074,825	476,978
67	Iroquois Falls—Hwy. 101	25,856	136,271
68	Hwy. 17 (Espanola)—S. Baymouth	—	62,972
69	Hwy. 12 (N. of Brechin)—Capreol	1,068,485	1,682,768
69B	Parry Sound	1,439,222	10,931
70	Springmount—Hepworth	—	80,805
71	Fort Frances—Hwy. 17 (E. of Kenora)	47,401	602,083
72	Hwy. 17 (Dinorwic)—Sioux Lookout	—	235,484
73	Port Bruce—Dorchester	15,811	231,522
74	Hwy. 3 (New Sarum)—Nilestown	13,442	123,504
76	Hwy. 3 (Eagle)—Hwy. 2	17,894	92,771
77	Leamington—Hwy. 401 (N. of Comber)	2,445	117,866
78	Hwy. 21 (Dresden)—Wallaceburg	—	96,591
79	Hwy. 2 (Bothwell)—Hwy. 7	68,146	266,576
80	Hwy. 2 (S. of Glencoe)—Courtright	16,646	323,747
81	Delaware—Grand Bend	8,355	364,415
83	Hwy. 23 (Russeldale)—Hwy. 21	—	240,561
84	Hensall—St. Joseph	303,494	100,866
86	Guelph—Amberly	1,290,745	713,944
87	Harriston—Hwy. 86 (Bluevale)	—	196,164
88	Bradford—Hwy. 27 (Bond Head)	861,572	55,958
89	Hwy. 11—Hwy. 23 (E. of Palmerston)	19,889	733,457
90	Barrie—Angus	1,418	149,624
91	Stayner—Duntroon	—	38,909
92	Elmvale—Wasaga Beach	—	74,071
93	Hwy. 11 (E. of Barrie)—Waverley	98,054	417,892
94	Callander—Hwy. 17 (S. of North Bay)	1,401,972	57,087
95	Alexandria Point-Wolfe Island	—	57,316
96	Port Metcalf—W. End of Wolfe Is.	220,264	176,473
97	Hwy. 6 (Freelton)—Hickson	229,639	12,157
99	Dundas—Hwy. 24 (N. of Brantford)	55,933	63,724
100	Jct. Hwy. 401 to London	28,668	22,614
101	Quebec Border—Hwy. 17 (Wawa)	1,805,648	2,055,493
102	Thunder Bay—Sistons Corners	50,957	153,218
105	Hwy. 17—Red Lake	879,669	588,061
106	Hwy. 28 (Dale)—Hwy. 2 (Welcome)	—	25,571
108	Hwy. 17—Hwy. 639 (Quirke Lake)	46,990	235,062
112	Hwy. 11—Hwy. 66 (Swastika)	208,518	85,873
115	Newcastle—Peterborough	120,195	354,336
117	Jct. Hwy. 11—Jct. 35	10,676	222,451
118	Hwy. 11—Hwy. 169	276,369	563,284
121	Hwy. 28—Hwy. 35 (S. of Fenelon Falls)	163,711	737,504
124	Sundridge—Parry Sound	12,085	390,926
125	Hwy. 105—Red Lake	—	43,009
126	Hwy. 401—Hwy. 2 (London)	—	76,629
127	Maynooth—Hwy. 60 (E. of Whitney)	80,629	188,230
129	Thessalon—Chapleau	2,902,425	1,068,329
130	Port Arthur—Hwy. 61	17,418	70,834
132	Renfrew—Hwy. 41	—	139,338
133	Hwy. 33 (Millhaven)—Hwy. 401	484,355	51,357
134	Jct. Hwy. 7—Jct. Hwy. 28 (Lakefield)	1,625	92,870
135	Hwy. 401—Hwy. 2 (London)	112,249	38,003
136	Hwy. 24—Orangeville	—	210,759
137	Hwy. 401—Thousand Islands Bridge	183,031	32,544

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
138	Cornwall—Monkland	1,048,092	216,871
140	Hwy. 3 (Port Colborne)—Hwy. 20	273,855	119,210
141	Hayes Corners Hwy. 69—Jct. Hwy. 11	167,520	258,836
144	Sudbury—Hwy. 101	5,052,319	1,583,249
169	Jct. Hwy. 12 to Jct. Hwy. 69	165,139	293,882
400	Toronto—Hwy. 12 (Coldwater)	3,395,870	3,565,830
401	(MCF) Quebec Border-Windsor	38,223,529	16,754,595
402	Hwy. 7—Blue Water	1,479,427	1,012,063
403	Burlington—Brantford	13,463,222	1,622,831
404	Toronto—Hwys. 7 & 12	5,063,271	505,461
405	QEW—International Br. (Queenston)	—	202,411
406	Hwys. 20-58—QEW	7,959,576	250,348
407	Jct. Hwy. 401 to Jct. Hwys. 35 & 115	2,468	—
409	Belfield Expressway Hwy. 401—International Airport	—	475,166
410	Hwy. 401—Jct. Hwy. 7 & 10	5,039,180	183,715
416	Jct. Hwy. 2—Johnstown to Ottawa	35,011	—
417	Quebec Boundary—Ottawa	5,458,085	2,529,003
420	QEW—Rainbow Bridge (Niagara Falls)	33,268	122,893
427	QEW—Hwy. 401	5,782,783	983,200
451	(QEW) Toronto—Fort Erie	46,086,166	7,350,545
456	Dundas St. (Toronto)	—	4,167
TOTAL KING'S HIGHWAYS		256,192,226	125,594,190

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
500	Hwy. 41 (Dengbigh)—Bancroft	2,462,389	—
502	Dryden—Hwy. 17	95,985	617,653
503	Tory Hill—Kirkfield	42,971	707,603
504	Hwy. 620—Apsley	125	125,160
505	Hwy. 46—Uphill	254,840	115,420
506	Plevna—Hwy. 41	461,528	166,717
507	Hwy. 28 (Lakefield—Hwy. 503)	1,831,636	324,604
508	Burnstown—Black Donald Mines	2,825	144,220
509	Hwy. 7—Snow Road Station	1,206	263,291
510	Magnetawan—Hwy. 124	—	15,851
511	Brightside—Hwy. 508	1,777,483	380,877
512	Eganville—Hwy. 60	63,504	231,254
513	Hwy. 132—E. of Hyndford	—	78,715
514	Hwy. 500—Hwy. 515	—	65,512
515	Hwy. 512—Combermere	1,033,423	220,499
516	Windamere to Port Sydney (Marchington Lake Road)	—	242,904
517	Twp. Road (near New Carlow)—Hwy. 62	250	74,803
518	Sand Lake—Hwy. 69	355,105	448,836
519	Hwy. 121—Redstone Lake	127,620	166,727
520	Burk's Falls—Ardberg	5,487	323,852
522	Hwy. 11—West of Loring	1,903,576	553,099
523	Lyell Twp. Line—Hwy. 60	134,136	98,270
524	Hwy. 522—Hwy. 534 (E. of Restoule)	—	35,185
525	Gravenhurst Sanatorium Road	—	144,773
526	Hwy. 69—W. of Britt	—	62,972
527	Jct. Hwy. 11 & 17 Northerly	1,457,758	1,021,021
528	Wolseley Bay—Hwy. 64	45,513	93,319
528A	Pine Cove Landing—Hwy. 528	—	35,350
529	Hwy. 69—Hwy. 69 (Magnetawan River)	—	125,944
529A	Hwy. 529—Bayfield Wharf	—	62,972
531	Bonfield—Hwy. 17	332,252	26,023
532	Hwy. 11 (S. of Bracebridge)—Hwy. 69	755,197	69,663
533	Mattawa—Hwy. 63	252,773	446,363
534	Powassan—Restoule	183,892	274,560

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
535	Hwy. 64—Riviere Veuve	852,376	426,589
537	Hwy. 69—Hwy. 17 (Wahnapiatae)	—	232,560
538	Algoma Miners Loop	913	38,125
539	Hwy. 64—Warren	355,038	255,556
539A	Hwy. 539—Tert. Road 805	394	33,394
540	Little Current—Meldrum Bay	1,019,319	1,029,824
540A	Hwy. 540—Barrie Island	—	75,667
540B	Manitoulin Island	—	9,521
542	Hwy. 68—Gore Bay	543,101	426,548
542A	Hwy. 542—Tehkummah	—	62,972
546	Hwy. 17—Mississagai Prov. Park	—	463,938
547	Hwy. 101—Hawk Jct.	—	27,258
548	Around St. Joseph Island—Hwy. 17	325,480	429,977
549	Lake Panache—Hwy. 17	1,483,247	62,972
550	Sault Ste Marie—Gross Cap	—	70,776
551	Province Bay—Hwy. 540	—	125,943
552	Hwy. 556—Twp. Road (E. of Hwy. 17)	66,780	119,618
553	Massey-Bull Lake Lodge	—	150,782
554	Hwy. 546—Hwy. 129	3,918	73,795
555	Magog Lake—Hwy. 557	—	62,079
556	Hwy. 17 (Heyden) N. Easterly	1,010,541	598,481
557	Blind River Northerly	353,361	152,576
558	Haileybury—Montreal River	32,254	128,739
559	Hwy. 69 Nobel—Hwy. 69	11,676	99,475
560	Hwy. 11—Hwy. 144 (S. of Gogama)	63,266	848,491
560A	Westree—Hwy. 560	—	54,930
561	Bruce Mines—Hwy. 638	761	92,004
562	Hwy. 11 (E. of Thornloe)—Hwy. 65	300,960	47,872
563	Batchawana—Hwy. 17	6,588	29,385
564	Blanche River Bridge—Hwy. 112	—	55,448
565	Pte Aux Pins—Hwy. 550	—	7,002
566	Matachenan—Ashley Mine	18,343	129,275
567	E. of Silver Centre—N. Cobalt	—	156,536
568	Hwy. 11—Kenegami	—	8,904
569	Hwy. 11—Hwy. 11 (S. of Englehart)	118,520	166,577
570	Sesekinoko—Hwy. 11	—	12,403
571	Hwy. 562—Earlton	3,110	25,103
572	Hwy. 11 Ramore—Hwy. 101	14,450	185,434
573	Charlton—Hwy. 11	—	84,534
574	Cochrane—Norembega	139,464	123,639
575	Jct. Hwy. 17—Jct. Hwy. 64	38,692	126,076
576	Hwy. 101—Kam-Kotia Mine	—	99,063
577	Hwy. 101—Iroquois Falls	—	113,941
578	Iroquois Falls—Hwy. 11	—	59,227
579	Cochrane—Gardiner	6,005	150,143
580	Hwy. 11—Lake Nipigon	—	108,476
581	Hwy. 11—Remi Lake	—	43,197
582	Hwy. 11 & 17—Loop at Hurkett	83,385	26,334
583	Mead—Lac Ste Therese	119,920	202,227
584	Hard Rock Mine—Nakina	2,695,753	351,977
585	Hwy. 11—Pine Portage	149,910	290,475
586	Hwy. 11—Lower Shebandowan Lake	—	21,809
587	Silver Islet—Hwy. 11 & 17	8,550	174,861
588	Stanley—Round Lake Road	14,166	287,798
589	Hwys. 11A & 17A—Dog Lake Road	15,568	130,222
590	Hwy. 130—Hwy. 588 (Nolalu)	104,652	99,578
591	Hwy. 589 Northerly	—	82,260
592	Hwy. 11 (Novar)—Hwy. 11	53,863	82,531
593	Hwy. 61—Hwy. 588 (Nolalu)	—	223,227
594	Dryden—Hwy. 17	11,541	165,331
595	Hwy. 597—Hwy. 590	152,732	205,430
596	Kenora—N. of Minaki	1,826,698	387,814
596A	Kenora	24,410	—
597	Pardee—Hwy. 608	—	77,158
598	Hwy. 604—Hwy. 128 (N. of Kenora)	—	15,155
599	Ignace—Tert. Road 808	1,836,951	1,246,811
600	Hwy. 71—Rainy River	8,644	338,275
601	Hwy. 17—Dryden	—	87,836

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
602	Fort Frances—Emo	138,745	163,776
603	Hwy. 17—Dyment	—	15,736
604	Hwy. 17—Kenora Airport	7,001	30,865
605	Hwy. 17—Eton—Rugby	2,048	41,152
607	Hwy. 69—(Big Wood—Hwy. 64)	6,369	58,888
607A	French River—Hwy. 607	—	12,981
608	Hwy. 61—Hwy. 595 (S. Gillies)	126,009	79,586
609	Hwy. 105—Clay Lake	—	58,152
610	Hwy. 67—Hwy. 101 (Hoyle)	11,270	83,819
611	Hwy. 602 (Sherwood) Northerly	—	72,096
612	Hwy. 103 (Mactier)—Hwy. 69	—	21,316
613	Hwy. 602—Lake Despair	21,744	132,729
614	Hwy. 17—Manitouwadge	—	244,526
615	Hwy. 17—Burditt Lake	—	157,001
616	Hwy. 101—Palomar	—	12,723
617	Hwy. 11 (Stratton)—Hwy. 600	—	85,135
618	Red Lake—Madsen	—	38,458
619	Hwy. 11 (Pinewood)—Hwy. 621	13,948	180,188
620	Hwy. 62—Hwy. 28 (Apsley)	26,198	198,496
620A	Hwy. 28—Hwy. 620	—	2,444
621	Hwy. 11—Lake of the Woods	700	324,351
622	Hwy. 11 (Atikokan) Northerly	—	41,244
623	Hwy. 11—Sapawe	—	20,574
624	Hwy. 11—Larder Lake	8,075	184,656
625	Caramat—Hwy. 11	—	339,988
626	Jct. Hwy. 17 to Marathon	350	16,786
627	Heron Bay—Hwy. 17	—	55,230
628	Red Rock—Hwys. 11 & 17	92,172	65,548
629	Timmins—Timmins Airport	147	43,847
630	Kiosk—Hwy. 17	—	175,321
631	Hwy. 17—Hwy. 11	1,419,182	770,019
632	Hwy. 118—Rosseau	—	57,389
633	Hwy. 11—Kawene	—	24,690
634	Smooth Rock Falls—Fraserdale	242,409	319,279
635	Hwy. 17—Ottawa River Bridge	—	12,981
636	Hwy. 11—Frederick House	—	20,523
637	Hwy. 69—Killarney	1,190,338	395,654
638	Dunns Valley—Echo Bay	—	204,635
639	Hwy. 108—Hwy. 546	—	130,672
640	Hwy. 571—Earlton Airport Entrance	—	12,130
641	Hwy. 17—Pellatt	7,001	55,214
642	Hwy. 599—Sioux Lookout	—	359,042
643	Hwy. 584—Twp. Road to Cavell	—	80,364
644	Hwy. 69 (Pte. Au Baril) Westerly	—	62,972
645	Hwy. 529—Bing Inlet	2,385	124,721
646	Pickle Crow—Central Patricia	68,000	30,861
647	Hwy. 17—Blue Lake Prov. Park	—	37,552
648	Dyno Mine—West Jct. Hwy. 121	941,635	179,918
649	Bobcaygeon—Hwy. 121	—	107,126
650	O.N.R. Right-of-way—Hwy. 12	21,100	38,380
651	Hwy. 101—Missanabie	—	251,485
652	Wade Lake—Hwy. 574	8,662,868	630,298
653	Portage Due Fonte Bridge Hwy. 17	—	55,751
654	Hwy. 11—Nipissing	11,282	176,883
655	Timmins—Ward Kidd Twp. Boundary	10,581	346,689
656	Hwy. 533 Northerly	11,248	24,340
657	Gold Pines—Hwy. 105	1,520	30,161
659	Hwy. 604—Hwy. 128	2,055,620	87,118
661	Gogama—Hwy. 144	600	38,847
663	Hwy. 11 (W. of Hearst) Northerly	—	21,801
664	Hudson—Hwy. 72	—	53,760
665	Hwy. 17—Richan	—	178,074
666	Kenora—Redditt	1,695,226	134,498
667	Hwy. 129—Sutton	—	160,904
TOTAL SECONDARY HIGHWAYS		44,252,545	28,318,289

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
TERTIARY ROADS			
800	Hwy. 11 & 17 N. of Whistle Lake	—	28,473
801	Hwy. 11—Namewanikan River	—	64,108
802	Hwy. 11—Burchell Lake	—	63,593
803	Hwy. 575—(Hwy. 101-3 Mile South)	—	15,849
804	Hwy. 105 (Lower Manitou Falls)	—	32,475
805	Hwy. 539A (River Valley)—Pond Lake	16,341	111,773
808	Hwy. 646—Otosilwin River	—	15,016
809	Hwy. 564—End of Highway	—	17,157
810	Hwy. 553—Richie Falls	—	200,151
811	Tertiary Road 800 Northwesterly	—	253,061
TOTAL TERTIARY ROADS		16,341	801,656
ACCESS, INDUSTRIAL & ARTERIAL ROADS			
708	Marchington Lake Road	404,575	19,528
709	Anaconda Road	—	26,543
751	Arterial Road—Jane St. S'ly to S. Queens Drive	10,230	—
771	Kodak Access Road	123,002	—
773	Garden Lake Road	—	94,995
785	Bending Lake Access Road	4,879,137	—
792	Hwy. 17—Dubreuilville Townsite	51,970	70,494
795	Sherman Mine Road	—	3,289
799	Caramat—Manitouwadge Road	—	52,708
TOTAL ACCESS, INDUSTRIAL & ARTERIAL ROADS		5,468,914	267,557
UNINCORPORATED TOWNSHIPS			
2	Indian Reserves	76,645	761,334
7	Special Settlers	314,966	47,913
9	Local Roads Boards	1,042,067	5,528,114
99	Statute Labour Boards	72,352	158,863
TOTAL UNINCORPORATED TOWNSHIPS		1,506,030	6,496,224
SPECIAL PROGRAMS			
450	Other Ferry Services	—	3,291,745
735	Kitchener/Waterloo Expressway	513,662	524,477
797	Airstrip Development	4,634,208	2,336,140
952	Sidewalks	66,113	—
7087	E.C. Row Expressway	844,986	246,613
7118	Brantford Expressway	177,822	23,618
7154	Harbour Expressway (Thunder Bay)	5,096	—
7182	Woodstock By-Pass	—	94,648
8905	Lands & Buildings	953,789	2,673,750
8954	Weigh Scales	116,442	381,074
	Development Roads	5,774,318	—
	Connecting Links	20,200,564	2,281,911
TOTAL SPECIAL PROGRAMS		33,287,000	11,854,976
HIGHWAY TOTALS		340,723,056	173,332,892
	Sundry Unallocated, District Office Administration, Engineering Buildings, Inventory Charges, etc.	(71,592,534)	32,594,934
TOTAL EXPENDITURE		269,130,522	205,927,826

MTC ANNUAL REPORT

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ANNUAL REPORT

1984 — 1985

INTERNATIONAL
YOUTH YEAR 1985ANNÉE INTERNATIONALE
DE LA JEUNESSE 1985

Ontario

Ministry of
Transportation and
Communications

Annual Report 1984-1985

for the
fiscal year
ending
March 31, 1985



Ontario


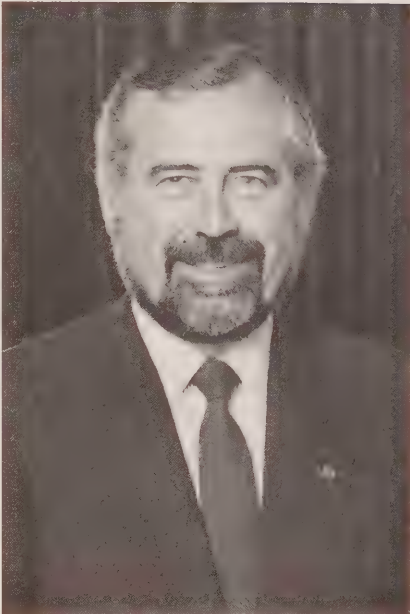
Ministry of
Transportation and
Communications

To: The Honourable John B. Aird,
O.C., Q.C., L.L.D.
Lieutenant-Governor of the Province of Ontario

MAY IT PLEASE YOUR HONOUR:

The undersigned takes pleasure in laying before
you the Annual Report of the Ministry of
Transportation and Communications for the fiscal
year ending March 31, 1985.

Respectfully submitted,

A handwritten signature in dark ink, reading "Ed Fulton". The signature is written in a cursive, flowing style with a large, prominent "E" and "F".

Ed Fulton
Minister

To: The Honourable Ed Fulton
Minister of
Transportation and Communications

Sir:

I have the honour to present the report of the
activities of the Ministry of Transportation and
Communications for the fiscal year ending March
31, 1985.

Respectfully submitted,

A handwritten signature in dark ink, reading "John Barr". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

John Barr
Acting Deputy Minister

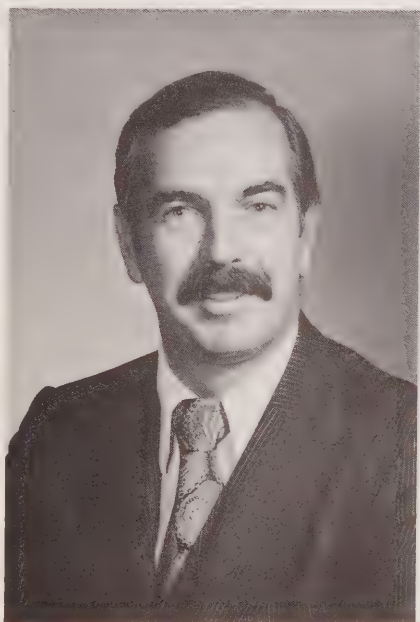


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Deputy Minister's Summary

The year 1984-85 offered MTC staff across the province a wide variety of challenges. In responding to the needs of the Ontario public, ministry employees continued to provide an outstanding degree of service.

Highways

Total expenditure for highway and freeway construction amounted to \$202,281,933 with an additional \$196,255,050 spent on construction of municipal roads.

MTC continued to concentrate on maintenance of the infrastructure with a total of \$215,476,459 allocated to maintenance of the King's Highway network. Construction or repair work was completed on 1,163 kilometres of highway and new work was done on 118 bridges.

Through the government's industrial expansion program, MTC received \$25 million in BILD funds for major highway projects in southern Ontario's Golden Horseshoe area.

Construction of the twinning of the Burlington Bay James N. Allan Skyway continued well ahead of schedule. Work on the \$63 million project, started in 1983, is slated for completion in the summer of 1985, eight months ahead of schedule.

Major freeway projects during the year included: the construction of Highway 403 from Rest Acres Rd. (west of Brantford) to Brant County Rd. 25; Highway 406 in St. Catharines; improvements on the QEW between Burlington and Hamilton; staged construction on Highway 401 by Pearson International Airport; and north of the Airport, the extension of Highway 427 towards Highway 7.

Work continued to expand Highway 400 and Highway 69 to a four-lane controlled access freeway; Highway 404 from Highway 401 towards Newmarket; along Highway 11 between Crown Hill and Gravenhurst. And planning was underway to provide a four-lane limited access highway along Highway 35/115. Rehabilitation

work continued along the Ottawa Queensway.

In northern Ontario, a contract was awarded for grading six kilometres on Highway 144 New, a bypass northwest of Sudbury. Work continued on the Highway 17 New bypass of the Kenora, Keewatin and Jaffray-Mellick areas.

Transportation Programs

During the fiscal year, operational subsidies to municipalities totalled \$119,629,157. Large capital expenditures on the Ottawa busway and the Scarborough rapid transit line resulted in capital assistance amounting to \$192,799,352.

Planning for the new GO-ALRT inter-regional transit system linking Hamilton and Oshawa continued, consisting of two sections from Hamilton to Oakville and Pickering to Oshawa.

During 1984-85, a total of 70 municipal transit systems received financial assistance. Municipalities introducing new major rapid transit facilities or experiencing an above normal population growth received special subsidies.

Construction on the Scarborough Rapid Transit continued throughout the year. The 7.2 kilometre intermediate capacity transit system (ICTS) was opened March 22, 1985, introducing technology design by the Ontario Government's Urban Transportation Development Corporation (UTDC). In the Ottawa-Carleton Region, work continued on the exclusive busway.

Special funding was secured from BILD to assist municipalities acquiring vehicles specifically designed to transport physically disabled persons. Work on the transit information, communication and control systems (TICCS) project continued to develop and implement computer based transit support packages designed to assist in managing and controlling important transit functions.

Air Services

Staff assisted municipalities across the province in planning, designing and operating their airports. A total of 46 municipalities received subsidies towards construction projects and maintenance expenditures supplemented through the BILD program.

Monitoring the level of air passenger services in Ontario was a major staff function as well as assessing air carriers' applications to the Canadian Transport Commission (CTC).

Staff continued to be involved in implementing the Ministry of Health's system of medical emergency heliports at Ontario hospitals.

A program of increased use of passenger surveys was also initiated to acquire a better understanding of air travellers' needs and expectations.

The Ontario Airport Facilities Map continued to be distributed detailing the location and facilities of all significant Ontario airports.

Marine Services

Major activities undertaken during 1984-85 included the celebration and promotion of the 25th anniversary of the St. Lawrence Seaway.

Assistance and funding was provided for the production of "The Great Lakes, St. Lawrence Seaway System" a major bilingual publication and a promotional film entitled "The System."

The final report of the "Ontario Ports Study" was completed and distributed to appropriate government and marine officials. An Ontario shipyard demand study was also completed. In co-operation with the federal government and other agencies, investigations continued into port pricing practices.

Rail Services

During the fiscal year, phases I and II were completed of a joint

federal/provincial study of the transportation needs of northern Ontario communities now served by VIA Rail.

Staff were closely involved in passenger-related issues. A submission was prepared for the Minister of Transport Canada's rail passenger action force outlining the province's position on VIA services and legislation for the rail passenger agency.

Communications

Staff made broadcasting and cable submissions before the CRTC on a range of issues including multicultural broadcasting, cable advertising, new multi-point distribution systems and CBC's licence renewal conditions.

Support was provided for Ontario's communications industries and new communications technology application through assistance to communications businesses, the introduction of Telidon Aviation Briefing Service (TABS) and the production of a telidon videotape presentation.

Major research studies were produced on viewer choice of television services, cable advertising, multi-point distribution systems, Canadian content, an economic profile of the CBC in Ontario and a survey of Windsor radio listeners.

Research

A variety of projects were undertaken in research and development with continuing emphasis on developing technologies to maintain the quality of pavements and bridges.

As part of MTC's contribution to the development of uniform standards for vehicle weights and dimensions, work was begun to collect data on the effects of heavy vehicles on pavements.

Cathodic protection was studied as a means of conserving and increasing the life-span of bridge structures. Several areas of activity increased awareness of the effects of de-icing salt on the highway infrastructure and the environment.

Highway operating systems staff worked to improve the understanding and application of the principles of engineering economics to ministry activity.

Municipal traffic control system demonstration projects were completed. Under development was a functioning model of a centralized mainframe-based information system called TIES (technology information exchange system).

Trucks and Buses

The Bus Transportation Office focussed on future public vehicle initiatives: the separation of charters and line-runs, regulation of public vehicle services, economic deregulation of charters and the strengthening of current regulations.

Truck transportation staff worked towards the January 1, 1986 implementation date for trucking regulatory reforms.

A continuing priority was the development of recommendations in the 1983 final report of the Ontario Commission on Truck Safety.

Drivers and Vehicles

Staff co-ordinated Ontario's strategy in the creation of a nationally uniform code for the transportation of dangerous goods and the fuel system inspection program for propane fueled vehicles.

A roadside seat belt and child restraint survey in May and June of 1984 indicated an increase in driver seat belt usage since 1981 — 70 per cent compared to 60 per cent — as well as a marked increase in child safety seat usage.

To further driver education, a new textbook "Roadworthy — Becoming a Responsible Driver" was published for use in Ontario's secondary school driver education program and commercial driving schools. Means of improving driving in Ontario were addressed at a workshop held to examine the concept of graduated licensing for young drivers.

Educational materials have also been produced to encourage voluntary usage of headlights on a 24-hour basis.

With 20 per cent more motorcycle fatalities in 1984 than in 1983, motorcycle accident casualties were a serious concern. A ministry study indicated alcohol, non-usage of helmets and speeding were contributing factors.

Bicycle safety was examined through a multi-year in-depth analysis of Ontario's bicycle accident statistics and trends. Future strategies and countermeasures were in the development stage to improve bicycle safety.

The following summarizes expenditures reported by the financial comptroller for the fiscal year 1984-85 with comparative figures for the preceding year:

Fiscal Year Ending		
	March 31, 1984	March 31, 1985
Ministry Administration	\$ 38,847,162	\$ 44,031,359
Policy Planning & Research	10,350,650	10,050,509
Safety & Regulation	78,372,494	75,126,179
Provincial Highways	516,228,314	515,633,572
Provincial Transit.	103,748,919	88,000,000
Provincial Transportation.	7,463,225	7,411,293
Municipal Roads	504,623,981	521,189,321
Municipal Transit.	279,318,355	322,710,607
Communications.	2,437,596	2,941,402
Total Gross Expenditure	\$1,541,390,696	\$1,587,094,242

Deputy Minister's Office

Affirmative Action Program

The goal of this Program was to achieve equity of employment for women by ensuring a minimum of 30 per cent female representation in all classifications.

Last year, emphasis was placed on five areas of special concern: middle and senior management, technology-related occupations, engineering positions, highway operations and maintenance.

In these and other initiatives, staff provided technical assistance to managers and co-ordinated MTC's affirmative action plan and activities.

Accomplishments included:

- 79 developmental assignments completed under the accelerated career development program;
- 29 developmental assignments

initiated through the affirmative action incentive fund;

- training of eight women through the computer application and other formal training programs to qualify them for systems-related positions;
- training of six women through formal programs to qualify for project and program analyst, financial, purchasing and accommodation officer positions;
- 49 women hired in contract positions in highway operations and maintenance;
- 85 career and work-related counselling sessions conducted with female staff;
- seven career-related information sessions conducted for women in the regions;
- a week of noon-hour information sessions on career planning;

— annual career development interviews with female staff and updating of the career development inventory;

- a program conference held for approximately 70 unit representatives and council members;
- regional and head office meetings to discuss affirmative action issues with managers;
- development of new technical assistance guide to assist managers in preparing their affirmative action plans; and,
- review, analysis and development of new strategies regarding female participation in staff training and development — with emphasis on management, technical and technological training.

Internal Audit Branch

During the year, staff made extensive progress in what is now known as the "new role of audit," which places more emphasis on financial and management controls and less on highlighting isolated errors or omissions.

An audit committee was formed with the deputy minister as chairman and assistant deputy ministers and executive directors as members. It met four times during the year. A short-term audit plan — as well as a long-term, or four-year plan — was approved, ensuring personnel could fulfill its mandate by auditing the ministry and other assigned agencies over a four-year period.

Follow-up procedures to audit recommendations were developed and approved by the committee to ensure the findings from the audit reports will be acted on to a satisfactory conclusion. Staff responsible for this work report through the Strategic Policy Secretariat to the deputy minister.

The branch was staffed to blend as many skills as possible into the organization; to broaden the personnel skills by hiring from non-traditional audit sources of the ministry (as the opportunity arises). Three female auditors are now part of the staff. The branch added six members to the

support group, people who previously provided support to the Office of the Future prior to being disbanded.

Most staff members have been given extensive training through outside and in-house courses, lectures, films, etc., to assist them in their new role.

An extensive public relations campaign took place where senior members of the branch communicated whenever possible with MTC staff, especially those at the senior levels in the districts, regions and head office. As a result, the new audit concept is now better understood. Entry audit meetings are held at each client's request and the scope and methodology of the audit discussed in detail. Positive findings — as well as negative — are listed in the final audit report, which is discussed in detail with the audit clients before completion. The audit report format appears to have been well received.

The branch has a staff of 78 members, including support staff. Auditors work in four primary areas: Engineering and Systems Audit Office had staff in all five ministry regions and head office. Regional staff generally audited activities in the districts and regions; head office personnel generally look after technical areas in head office, together with those areas

providing technical support, direction and policy decisions to the districts and regions. This staff was also responsible for conducting independent overviews of contractors' records relating to claims filed against the ministry.

Operational audit staff had two major areas of responsibility delegated to the Financial and Management Audit Office responsible for conducting audits in those MTC activities essentially of a non-technical nature — with emphasis on the areas of heavy financial involvement, and the EDP Audit Office responsible for auditing the ministry's many computer systems and programs. The ministry had to be concerned with the accuracy of the huge variety of programs and their security. To acquire, train and hold capable staff for this function has been a major problem. Cognizant of this fact, the branch has taken the necessary steps to try and ensure adequate provision of the necessary resources.

During the year, some 22 formal audits were completed, covering all MTC programs with the exception of the Communications Division. Audits were also started in the Ministry of Northern Affairs, GO Transit and in connection with UTDC and Expo 86.

Strategic Policy Secretariat

The secretariat was composed of three offices which support the minister, deputy minister and the Strategic Policy Committee (SPC). In addition to the secretariat and Outlooks Office, the Human and Social Factors Office was added to affirm the growing importance of human and social factors.

Policy Secretariat

Staff was responsible for promoting, monitoring and facilitating strategic management at MTC and for coordinating the operation of the ministry's strategic management processes. As part of this, they managed the specific activities of the annual strategic planning process, reviewed and recommended changes to the planning process, coordinated MTC's senior policy committee (SPC), coordinated Cabinet submissions, and provided liaison with central agencies. Personnel also provided special support for the minister and deputy minister coordinated responses to government initiatives (e.g. Speech from the Throne), questions in the Legislature, and prepared certain speeches (e.g. deputy's 100 minutes). They also assumed a number of other duties, including coordination of audit committee, liaison with the ombudsman's office, management of consultant assignment committee, and provided an information link with Ontario Houses and Missions.

A new and revised "Strategic Directions 1985" publication was prepared to provide an overview of the ministry's strategic style of management and the directions formulated to deal with emerging issues affecting the ministry. Staff reviewed the many linkages between ministry actions and last year's strategic directions.

Outlooks Office

Staff's main function was to identify and analyze emerging trends in the external environment to assess potential implications related to the transportation and communications fields. The data base which covered a variety of secondary information sources was significantly enriched with the new subscription to an opinion leader research program and a newspaper content analysis.

Information was disseminated mostly through presentations to SPC, program committees and ministry offices. Experts were also invited to outlooks sessions and senior management conferences to speak on current topics including regulatory reform, Canada's

future, social and economic trends and public opinion trends. A one-day workshop was held with the active participation of executives and managers to identify and discuss the implications of societal change on the MTC's policies and programs.

An outlooks presentation covering the major trends of the external environment was integrated into the annual strategy planning session and became part of the "1985 Strategic Directions".

Two specific outlooks studies were underway; one dealing with the marine mode in Ontario and the other on the monitoring of regulatory reform.

SPS staff also included appropriate career development opportunities in its staffing strategy.

Human and Social Factors Office

Personnel were responsible for carrying out research and providing

professional advice dealing with human and social considerations in the development and evaluation of ministry programs, policies and corporate directions. Staff was transferred to SPS in February from the transportation technology and industry branch to strengthen and emphasize human/social factors in transportation and communications.

Staff were involved in a variety of major projects and consulting services, including a new driver education textbook and a course for use in Ontario high schools. A survey was carried out of seat belt and child restraint use by motorists in the province. An evaluation was completed of different reflectorized materials for use on overhead freeway guide signs and evaluations continued of the probationary licensing program and the Telidon Aviation Briefing System. Finally, an analysis was carried out of the factors associated with motorcycle accidents involving injury.

Public and Safety Information Branch

Branch staff met MTC's overall communications' needs, including liaison with radio, TV and print media.

During the fiscal year, information materials produced and distributed totalled over six million. Included among safety-related posters, brochures and booklets were the Driver's Handbook and the Motorcycle Driver's Manual, the latter two in co-operation with D&V policy staff.

Safety curriculum materials were produced for distribution to Ontario public and separate schools and driver courses in secondary schools and some community colleges.

Personnel also produced the Ontario Traffic Safety Bulletin, MTC News and an affirmative action newsletter, Working Together.

In addition, information officers were involved in the production of radio and TV commercials, A/V scripts and display advertising for newspapers and magazines.

Over the course of the year, audio-visual staff produced five films, as well as MTC's annual "Ontario on the Move." Among them were "Two Hundred Years of Highways" which outlined the history of highways in Ontario; films on bicycle safety, the Burlington Bay James N. Allan Skyway, Trucksave and another for the marine office.

Section personnel maintained an

A/V library of traffic safety films and video tapes for distribution to schools, police and the public.

Staff produced 8,000 black-and-white photographs, 23,000 colour slides and duplicates and 125 portraits.

Also created was a thermographic display at Ontario Place as well as exhibits for the Canadian Lakehead Exhibition, Western Fair in London and Ottawa's Central Canadian Exhibition.

During the spring, summer and fall of 1984, MTC's Bicentennial caravan visited 16 Ontario communities and spent three weeks at the Canadian Automotive Museum in Oshawa.

Information officers researched and wrote 72 speeches for the minister and deputy minister, plus editing others for senior staff. Production of news releases, general, contract and tender amounted to 342.

Staff also provided advice and guidance in communications planning to other MTC offices/divisions.

Other responsibilities included coordinating official functions for the minister, i.e., news conferences, municipal airports and highway opening ceremonies.

During the year, information staff answered more than 145,000 telephone requests for up-to-date information, 120,000 requests for general information and replied by mail to a further 1,400 enquiries.

Management Improvement Branch

Branch staff supports the deputy minister and senior management in evaluating opportunities for continued development of MTC's management and organization. In fulfilling this role, they undertake varied corporate management and organizational improvement assignments, while providing consultative advice and assistance to program and line managers in reviewing specific initiatives within their particular areas.

During the past year, personnel were responsible for a broad range of activities including the following completed projects and achievements:

- the evaluation of the potential for automation and redistribution of activities related to the regional and district financial administrative process. Work was initiated on further defining and analyzing the benefits and implications associated with long term direction;
- an examination of the organization of the Safety and Regulation Division to ensure its compatibility with the program's longer term development and changing environment. Modified roles, responsibilities and relationships

were established for the head office structure and region and district delivery units;

- a comprehensive review of MTC's publishing arrangements resulting in the clarification and refinement of the roles and relationships among the client and support units. Recommended policy and procedure initiatives were also developed to increase the effectiveness and economies associated with ministry publications;
- an assessment and confirmation for the decentralized approach to the funding of data processing services. Subsequently a detailed analysis of the rate formula was initiated to ensure equitable cost allocation and promote cost accountability;
- task force participation and co-ordination in the development and approval of improved financial control mechanisms for the vehicle licensing and registration system;
- a review of the functions and organization associated with corporate policy development, resulting in revised reporting arrangements and increased socio-

economic and human and social factors considerations in management and program initiatives; plus,

- the development and approval of a revised organization structure for the Provincial/Municipal Transportation Division to consolidate responsibilities and maximize effectiveness.

Additional activities initiated during the year included:

- a review of the products and services provided by the Supply and Services Branch to confirm current strategies appropriately respond to the ministry's objectives and evolving needs;
- further definition, development and application of an operational planning and budgeting framework to complement strategic and results-oriented management processes; and,
- the determination of the future direction for the "performance budgeting system" to ensure it effectively responds to managers' resource planning and monitoring needs.

Office of Legal Services

Staff provides legal services to the minister and MTC. Legal officers are members of the Ministry of the Attorney General, seconded to MTC and located at head office and each of the regions — except Thunder Bay.

They provide legal advice on all aspects of programs and prepare legal documentation through which such programs are carried out, e.g., ministry contracts, claims, property acquisitions and disposals.

They also advise on legislation affecting the ministry and prepare and recommend amendments to the statutes administered by MTC.

A major initiative in this area involved the preparation of the Public Trucking Act, 1985, which has been tabled in the Legislature. Passage of this Act will require complementary amendments to various acts and regulations which will be prepared by staff legal officers.

Other safety concerns were addressed through amendments to the Highway Traffic Act (HTA). Specifically, inspection standards and procedures were amended for the safety inspection of fuel systems for propane-powered vehicles.

Legal office counsel provide ministry representation before various administrative boards and tribunals

such as the Canadian Radio-television and Telecommunications Commission (CRTC) and the Canadian Transport Commission (CTC).

Counsel conducts prosecutions for offences under the ministry's statutes, e.g., the HTA and Public Commercial Vehicles Act, as well as the Motor Vehicle Transport Act (Canada).

Claims Office

Staff initiates claims on behalf of MTC against third parties for damage to Crown property arising from accidents on the King's Highway; investigates and resolves, frequently by negotiation, claims made against MTC (and, in some cases, the provincial government) arising from a variety of circumstances, such as:

- accidents involving provincial government vehicles (excluding Ontario Provincial Police);
- accidents resulting in injuries to government employees, while on duty by the action of a third party;
- accidents arising from alleged lack of maintenance of the King's Highways;
- accidents or emergencies on the King's Highways necessitating the presence of municipal fire departments;

- accidents or damage to third parties as a result of highway construction work;
- damage or flooding to third party property arising from alleged improper drainage;
- depletion of rural well water supplies or pollution of wells allegedly from highway construction work, winter road maintenance or sand/salt storage facilities;
- damage to private residences allegedly attributed to vibration from construction work or dynamite blasting;
- crop damage claims said to have been caused by weed spraying operation;
- spraying of automobiles or private property during mulching operations or highway zone-stripe painting; and,
- claims arising from incorrect computer information emanating from the Licensing and Control Branch.

Staff instituted claims against the public for damage to Crown property such as bridges, light standards, guide rails, etc., and, where necessary, arranged for legal action to be taken against responsible parties through the Ministry of the Attorney General.

Communications

Division aims are guided by three key objectives: to ensure provincial residents access to a reasonable choice of communications services at fair prices; promote efficiency and effectiveness in the communications network; and, contribute to Ontario's economic growth in the communications sector.

In fulfilling these objectives, staff became involved in a broad range of activities, including policy development, support to industry, and technology application projects.

In its policy activities, personnel co-ordinated the development of the province's positions on communications matters to influence decisions made at the federal level. This frequently took the form of preparing comments and interventions for submission to the Department of Communications (DOC) and federal regulatory agency, the Canadian Radio-television and Telecommunications Commission (CRTC). In 1984/85, staff prepared a total of 32 written submissions and participated in nine CRTC hearings.

Broadcasting and Cable

In this area, staff was influential in a number of policy decisions, including:

- Canadian content regulation — For the first time, the CRTC Executive Committee met with staff to discuss Ontario's proposals for a new approach to Canadian content regulation on television. This meeting followed the release and distribution of a study commissioned by the division on the implementation of its proposed performance-based approach. Changes to Canadian content requirements are likely to be announced this year;
- FM radio regulations — At a CRTC hearing held to review broadcasting issues in Windsor, MTC proposals resulted in more flexible regulations for area radio stations forced to compete with popular Detroit stations. Staff also proposed other FM radio stations should have fewer burdensome regulations.
- Canadian superstations — Staff made proposals to the CRTC to allow Canadian TV superstations or "distant signals" which would increase viewers' choice of programming in remote areas. The CRTC's policy to license distant

signals cited MTC's research and position papers extensively; and,

- Federal Bills C-10 and 20 — These bills, which provided for amendments to the Bell Canada, CRTC, Broadcasting and Radio Act, included proposed changes made by MTC in response to drafts introduced by the previous federal government.

Broadcasting and cable submissions were also made on the issues of: cable advertising, multicultural broadcasting, new television specialty services, the restructuring of the Pay-TV industry, new multi-point distribution systems (MDS), and CBC's licence renewal conditions.

Major research studies were published to support MTC's positions, including: viewer choice of television services, cable advertising, MDS, Canadian content, an economic profile of the CBC in Ontario, and a survey of Windsor radio listeners.

Telecommunications

Here, divisional representations included:

- CNCP long-distance competition hearing — Staff supported the introduction of competition in long distance telephone service by CNCP, but did not support higher local rates or American-style deregulation of the industry. MTC's position was backed by three major studies on the impact of competition in the U.S., the potential impact on the independent telephone companies in Ontario, and the potential social and economic impact in Canada.
- National telecommunications policy — Personnel continued to provide leadership in promoting a national policy which would rationalize the "patchwork quilt" of ownership and regulation in telecommunications across the country. National policies and standards would produce economic benefits by ensuring a strong and efficient national network. The federal government is expected to announce the cornerstones of its policy shortly.
- Cellular mobile radio — Personnel promoted the competitive licensing of cellular mobile telephone service which begins in Toronto and Hamilton on July 1, 1985, by Cantel Inc. and Bell Cellular Ltd.; and,

- Telephone company rate increases — Staff continued to look out for residential and business telephone service consumers, by intervening in Bell and B.C. Tel rate proceedings. Bell Canada was given a two per cent interim increase for 1985 and reported it would not request another increase until the spring of 1986.

Other telecommunications submissions included: alternatives to extended area service charges, mobile satellite policy, enhanced services, rate rebalancing, structural separation of competitive services, and proposed changes to the Bell Canada Act.

Industry Assistance and Technology Applications

Staff was also successful in meeting its objectives in the areas of support for Ontario's communications industries and the application of a new communications technology. Accomplishments in these areas in 1984/85 included:

- the provision of assistance to 17 small to medium-sized communications businesses. Assistance ranged from successful access to government funding assistance and manpower programs to referrals to potential partners;
- initiation of a joint-referral program with Ontario's Ministry of Industry and Trade, co-ordinating assistance provided to provincial communications industries;
- the introduction of TABS (Telidon Aviation Briefing Service) in 24 locations throughout Ontario. TABS uses Telidon technology to provide pilots with weather information on a regular basis; and,
- the production of a Telidon videotape presentation entitled "The History of Communications in Ontario." Developed to celebrate the province's bicentennial, the tape marked the first time sound was used with a visual presentation of Telidon graphics.

Other industry and technology projects included participation in the development of a fibre optic freeway traffic management communications system; co-ordinating 13 ministries' uses for mobile satellite service, and published studies on "The Information Economy" and "Trends in New Communications Technologies."

Provincial / Municipal Transportation

Municipal Transportation Division

Staff managed the ministry's municipal transfer payment programs; assisted municipalities in the development and operation of their transit systems and construction and the rehabilitation and maintenance of their road systems.

Personnel also provided guidance and expertise to municipal authorities in identifying their transit and road needs and developed a fair and equitable distribution of subsidy funds. They also carried out verification procedures to ensure legislative and policy requirements were met.

The division was supported in the managing and monitoring of the municipal roads subsidy program by the staff of the regions and districts.

Municipal Roads Office

Staff were responsible for program planning, policy development and evaluation, and the overall administration of all municipal road subsidy programs.

Municipal Roads Program

During the 1984-85 fiscal year, road grants were provided to 839 municipalities and 45 Indian Reserves under the Public Transportation and Highway Improvement Act.

Some of the major projects subsidized included road/bridge improvement or expansion such as Prairie Siding Bridge in Kent County and Taylor Kidd Blvd. in Frontenac, Lennox and Addington Counties. There were also eight major railway

grade separation projects: Major MacKenzie in York Region, Gardiner's Road in Frontenac County, Grenville Ave. in Thunder Bay, Brimley Rd. in Scarborough, Hyde Park Road (2) in London and Middlesex County, Derry Road in Peel Region, and Dundas Street in Metro. In addition, 37 municipalities received subsidy for the installation of traffic signals.

Funds were provided under agreement, toward the operating deficits of seven municipal ferry services.

Highway Connecting Link Program

There were 888 km of municipal roads covered by connecting link agreements. MTC funded 126 agreements with a total expenditure of \$15,441,697. An additional \$2,154,494 was spent on maintenance activities in towns, villages and townships.

Development Road Program

Development road work are those municipal projects which would ordinarily place a financial burden on municipalities. MTC subsidized these projects under agreements with each municipality up to 100 per cent of the total cost.

The roads remain under the jurisdiction of the municipalities with work done either on a day-labour basis or by contract. There were 16 projects, resulting in an expenditure of \$4,223,534.

Unincorporated Areas

MTC contributed \$4,837,908 for maintenance and \$1,739,418 on road and bridge improvements involving over 60 projects in the unincorporated areas. There were 18 statute labour boards, 258 local road boards, 34 Indian Reserves and 180 other groups which received funds for roads in such areas.

SUMMARY

Area	Total Kilometres of Road	Approved Expenditures	Subsidy Paid
Metro Toronto	728.4	\$ 49,442,976	\$ 23,527,938
Upper Tier	19,780.3	244,315,600	153,385,400
Lower Tier	110,756.6	632,757,200	305,606,700
Computer Systems			
Metro	—	2,221,924	1,110,962
Peel	—	1,689,200	884,600
Total	131,265.3	\$930,426,900	\$484,475,600

Transit Office

Personnel was responsible for the ministry's transit program policy development and evaluation, administration of municipal transit financial assistance programs, development and management of operational improvement and demonstration projects, and assisting in planning municipal and provincial transit system improvements.

A total of 70 municipalities with municipal transit service received \$129.1 million toward operations, and \$191.7 million toward capital items and construction. Transit operating assistance provided a subsidy to cover 50 per cent of the theoretical net cost calculated on the basis of a target revenue/cost (R/C) ratio established for each municipality.

Also, additional subsidy up to a limiting amount was provided to those municipalities falling short of their target R/C ratio. Municipalities experiencing an above normal population growth also received additional subsidy.

As well, municipalities introducing a new major rapid transit facility, were eligible to receive special subsidy for the initial years of operation. Agreements were developed on an individual basis, incorporating municipal initiatives related to co-ordinated land use, transportation policies and detailing the operating subsidy terms.

Construction on the Scarborough Rapid Transit continued. The official opening on March 22, 1985, of the 7.2 km Intermediate Capacity Transit System (ICTS) marked the birth of a new generation of urban transit technology for Metro Toronto. It introduced technology design by the Ontario Government's Urban Transportation Development Corporation (UTDC).

Toronto Transit Commission (TTC) placed orders in 1984 for 124 new subway cars to replace the 30-year-old "Gloucester" cars first ordered for the Yonge St. subway in 1954. As well the TTC ordered 52 articulated streetcars to replace its existing fleet of PCC conventional streetcars. In addition, the TTC placed an order for 122 transit buses to replace 75 existing buses and provided 47 buses for expansion purposes. Seventy-two additional buses were ordered by other municipal transit systems throughout the province.

In Ottawa-Carleton Region, approximately 20-lane km of exclusive

busway was available for revenue service. That represented about 25 per cent of the total 86-lane km system, scheduled to be completed by 1990.

Operational reviews were carried out in a number of municipalities, including Stratford, Niagara Falls, Cobourg, Pickering, Cambridge, Cornwall and Brantford. As well, management reviews were carried out in Brampton and Burlington.

Examination of integrated transportation terminals was undertaken in Owen Sound and Kitchener. Plans continued for an integrated transit service in the Kingston area.

Through the joint efforts of the Ontario Urban Transit Association (OUTA) and the MTC Transit Office staff, the Ontario transit properties have responded well to the "transit performance review guidelines." Many properties have completed internal reviews with encouraging results.

Most recently, funding is being reviewed for possible assistance for OUTA's transit improvement centre; its role will be to identify training needs and channel information in support of improved effectiveness and efficiency of transit systems.

In 1984, a total of 50 municipalities received financial assistance for the provision of specialized transit service for physically disabled persons. As a result of a comprehensive program review, the basis of subsidy mechanism was altered to encourage effective operation and improvement of service productivity. Also, a special funding of \$1.5 million was secured from BILD to assist municipalities acquiring vehicles, such as the Orion II, which were specifically designed to transport physically disabled persons.

The Ontario Urban Transit Fact Book, which provided a summary of the operating characteristics, and results measurements of Ontario's municipal transit systems, was issued in an improved format.

Work continued on the transit information, communication and control systems (TICCS) project to develop and implement a range of computer based transit support packages to assist in managing and controlling many of the important functions of transit. The second year of development saw several major product installations completed.

The development and im-

plementation of a computer assisted passenger reservation, scheduling and dispatching system for the TTC's Wheel-Trans service for physically disabled persons was progressing with part of the system installed.

A study undertaken to determine the computer needs of small and mid-sized transit properties outlined strategies for the appropriate and effective use of computers.

The American Public Transit Association (APTA) at the 1984 annual meeting in Washington D.C., honoured the TTC with their Management Innovation Award for its communications and information system. As well, the Government Agency Transit Achievement Award was given to MTC, recognizing the outstanding execution of its public transportation responsibilities and contributions to the transit industry as a whole.

Interregional Transit Co-ordination

MTC established a mechanism, including a staff position, to support the achievement of improved transit co-ordination between the 13 transit systems in the greater Toronto area.

Issues discussed at an interregional transit forum included service co-ordination, potential service duplications, integration where feasible and desirable.

External Relations Co-ordination

MTC's wide range of contacts with transportation agencies of other governments was co-ordinated through this office.

Staff assisted in development and administration of transportation policy to ensure such policies reflect the views of the government.

In the past year, MTC signed a memorandum of understanding with Transport Canada to undertake, where possible, research and development activities of mutual interest. The process will be focussed on specific areas, including transportation technologies, infrastructure efficiency and effectiveness, international competitiveness and information exchanges.

Payment Verification Office

This office acts as a ministry financial and management control regarding municipal transfer payments.

Personnel were engaged in the auditing of municipalities throughout the province to verify, on behalf of MTC and the Ministry of Northern Affairs, municipal transfer payments to

ensure compliance to government and ministry policies, directions, grant conditions and agreements.

This function covered the normal subsidized road, transit and municipal airport expenditures and also specific programs concerning expressways, connecting links, development roads and special agreements. Personnel were also responsible for auditing the

unincorporated areas covering statute labour and local roads boards.

Major project audits were performed on the expenditures introduced by UTDC and affiliates and various consultants on behalf of the development of light rail transit technology and other transit related programs.

Transportation Technology and Energy Branch

Branch staff conducted and promoted research, development and the application of transportation and energy technologies and systems which:

- improve the efficiency and effectiveness of Ontario transportation systems;
- support the transportation industry; and,
- foster economic growth.

The following four offices were charged with the delivery of the program, each in its own area of responsibility:

Transportation Technology Office

Staff were responsible for research in urban transit, commercial vehicles and control and information systems. Also, research and a variety of demonstrations were conducted by the automotive energy section.

Urban Transit

Staff continued to work closely with the TTC, Ottawa-Carleton (OC) Transpo, and the private sector to improve the performance and cost-effectiveness of transportation systems. Staff also provided technical expertise to Government of Ontario Advanced Light Rail Transit (GO-ALRT) to assist in defining the vehicle suspension and guidance system and choosing an optimum propulsion system.

Personnel participated with other ministry and government agencies in the rotary and floating frame truck programs and analyzed the dynamic performance of both trucks.

Assistance and technical expertise were given to the following:

- the UTDC in the areas of linear induction motors (LIMs) and the transporter project;
- the Municipal Transportation Division and its implementation of the Scarborough Intermediate Capacity Transit System (ICTS) project; and,
- the Transit Office and several Ontario transit properties in the testing and evaluation of articulated buses.

New applications for such advanced technologies as vision systems were explored to determine their application in transit maintenance operations. Vision systems are optical image analysis systems that evaluate, interrelate, and produce inferences about objects from the result of such image analysis.

Commercial Vehicles

Staff conducted extensive testing on truck tires, braking systems performance, modes of vehicle instability, and computer simulation of heavy commercial vehicles.

Personnel developed a mobile truck tire dynamometer used for testing three types of truck tires to compare their characteristics when subjected to braking and turning on wet pavement.

Staff also developed and used computer simulations to better understand the performance and handling characteristics of heavy truck combinations for both engineering and safety purposes.

Vehicle tests were conducted on behalf of the Canadian Conference of Motor Transport Administrators (CCMTA) Roads and Transportation Association of Canada (RTAC) Vehicle Weights and Dimensions Study. The objective was to produce the technical background for uniform truck size and weight regulations across Canada.

Automotive Energy

Through research done in co-operation with various universities and the private sector, staff continued to support of the Transportation Energy Management Program's (TEMP's) efforts to promote the utilization of propane, natural gas, and methanol as alternatives to gasoline and diesel fuels. Research, development and demonstrations were conducted on engines, conversion equipment, fuelling systems, fuels, and oils.

Control and Information Systems Office

Section personnel conducted research and development activities to assess the applicability and promote the use of advanced technologies in Ontario transit systems, including:

- investigated robotic technologies with the view of having Ontario manufacturers develop a mobile robot for the labour-intensive task of cleaning subway car interiors;
- supported the TICCS project by providing technological expertise on an as-needed basis;
- investigated new hardware technology which could be applicable to automated transit vehicle monitoring; and,
- evaluated a vision system (optical image analysis system) for its applicability to automated guideway transit.

Technical Publications

Staff published and distributed a wide variety of technical and marketing materials on behalf of two branches: Research and Development (R&D) and the Transportation Technology and Energy Branch. They continued to support TEMP marketing efforts, particularly the Trucksave program.

A LISA graphics computer for the production of graphs, charts, and drawings was introduced. Complex design drawings are still done by hand but most are now done on the LISA. The resulting increase in productivity has compensated for a reduction in graphics staff. Word processing staff also created a dynamic data base to maintain a record of active and proposed research projects.

Activities of particular interest this year included a series of about 30 papers and artwork for hundreds of slides prepared for the mission to Saudi Arabia and display panels and seminar manuscripts for an Ontario Good Roads Association (OGRA) convention.

Experimental Testing

Section staff provided expertise and testing facilities, including research and large scale test laboratories, mobile research laboratory, and a commercial testing facility, unique in Ontario. These facilities also include a digitally controlled chassis dynamometer designed to test light-vehicle exhaust emissions, fuel economy, and alternative fuels.

Bridges were instrumented on behalf of the structural research section and the data collected, recorded, digitized, and submitted for analysis. Two new microcomputer-based data acquisition systems were developed and assembled to assist commercial vehicle testing and stress analysis. Staff developed a digitized point load tester to determine the breaking strength of rock aggregates in co-operation with the R&D Branch, Materials Office, and industry. Finally, personnel assembled a teaching robot to assist interested ministry personnel in understanding their basic hardware and software functions.

Transportation Energy Management Program (TEMP)

This program, a joint venture with the Ministry of Energy, was engaged in reducing Ontario's dependence on petroleum fuels in transportation, through initiatives in two main areas: development of alternative transportation fuels and the marketing of energy management measures.

Alternative Transportation Fuels

ATF staff, with support of staff in the Transportation Technology Office, conducted and co-ordinated a program of research and demonstrations of alternatives to conventional oil-based transportation fuels. Following investigation of barriers facing the development and use of natural gas, propane, and methane as alternative fuels, personnel were active in three areas:

Applied Research

- conducted research at the Royal Military College to develop promising natural gas absorption media, which may lead to the adoption of low-pressure storage of natural gas for vehicles (NGV);
- investigated the cold-starting performance of methanol/gasoline blends in modern spark-ignition engines;
- conducted chassis dynamometer

evaluation of factory-modified methanol vehicles; and,

- continued research with Shell Canada and Ford Canada to develop superior neat methanol fuel formations.

Technology Development

- continued engine and chassis dynamometer testing of commercial natural gas conversion systems in light and medium duty spark-ignition engines;
- completed the development and testing of a heavy-duty propane-powered engine at the Ontario Research Foundation;
- continued testing of one propane and two and four-stroke diesel transit bus engines in UTDC engine dynamometer laboratory;
- performed the technical evaluation of the prototype propane-powered bus at OC Transpo; and,
- conducted a theoretical evaluation of commercial NGV home compressors.

Fuel Demonstrations

- continued with the OC Transpo propane bus demonstration;
- initiated a NGV bus demonstration with the Hamilton Street Railway Co.;
- completed the Union Gas NGV fleet demonstration;
- continued with the Elgin County NGV school bus demonstration; and,
- began a new phase of the MTC/Suncor methanol/gasoline blend vehicle fleet demonstration.

Marketing

Staff worked with industry, municipalities and the general public to disseminate information and promote adoption of fuel-saving measures, technologies, and the use of available alternative fuels, through seven sub-programs.

DriveSave

DriveSave staff promoted conservation and fuel economy measures to the general public, beginner drivers, and automobile-light truck fleets, through seminars, displays, and the distribution of information and promotional material, including pamphlets, posters, and films. During this past year, over 2.5 million pieces of fuel economy information were distributed in Ontario.

Staff held fuel economy seminars throughout Ontario for fleet managers and initiated a new seminar series for driver instructors.

Trucksave

With more than 215,000 trucks operating in Ontario, staff had a large audience for the promotion of fuel savings. Over 500,000 publications were distributed, together with films and slide presentations.

A study of the Trucksave sub-program was conducted, and from the results and findings of this study, staff developed a marketing strategy to improve the use of Trucksave's services and resources. This included development of a specialized information package for urban trucking operations and guides to computerized routing and record keeping.

The Third Annual Trucksave Fuel Economy Challenge saw the number of entries double. The event was an excellent testing ground for new fuel-efficient trucks. Fleet managers found it sparked serious driver interest in saving fuel.

Share-A-Ride

Personnel promoted vanpooling and carpooling, with the objectives of saving fuel and reducing road congestion. Associated benefits of ridership included lower costs for employers, through reduced parking demand and lower absenteeism. Individuals enjoyed the benefits of reduced commuting costs and release from the stress of driving.

Share-A-Ride has been responsible for the creation of 500 employer-operated and owner-operated vanpools and 650 carpools. An additional 1,400 carpools were attributed to the 39 carpool parking lots in the province.

Municipal

Staff continued to work closely with municipalities in identifying conservation and energy management opportunities, maintaining contact through the municipal transportation energy advisory committee (MTEAC). For the third consecutive year, the MTEAC newsletter was distributed on a quarterly basis, with a subscription of nearly 5,000.

Individual projects operating within the municipal subprogram included the following:

- development of a municipal fleet management information system software package;
- implementation of measures (primarily traffic related) introduced in the Metro Toronto area transportation energy study, phase II and the Ottawa-Carleton transportation energy management study; and,

- initiation of a project that will examine energy conservation opportunities in small and/or rural municipalities across the province.

ATF Marketing

Promotional staff moved toward support for the newly emerging natural gas fuel market, while maintaining a high market support function of the propane fuel industry. Staff produced combined technical and promotional manuals for both fuels and conducted a seminar on alternative fuels for the fleet industry.

Teleconferencing

Staff distributed more than 4,000 brochures and reports and 130 copies

of a new videotape, "Training for Success." Several training sessions were held with government departments and private companies. Personnel provided assistance in the establishment and implementation of a course on teleconferencing at Sheridan College (Oakville) and to Canadian Association for Distance Education for several national teleconferences.

Staff organized a one-day seminar "Teleconference '85," introducing the various teleconferencing options and technologies.

Transportation Industry Office (TIO)

TIO staff supported the manufacture and sale of goods and services in the transportation industry, domestically and internationally.

They offered support to Ontario companies in product development. Personnel were involved in such projects as the commercialization of an MTC-developed device for testing the reaction time of an air brake system on tractor-trailer units and the development of equipment for pavement repair.

To support Ontario companies in export marketing, TIO established foreign government contacts and provided managerial and technical input to strengthen proposal or project development. Contacts were made with governments in Trinidad, Taiwan, Saudi Arabia, West Africa, and Jordan.

Personnel established contacts with pertinent federal and provincial bodies as well as industry associations, to facilitate work on both the domestic and international fronts.

Policy Planning Branch

The four offices were established in support of the MTC policy development process. The following is a summary of the achievements and specific activities:

Urban Transportation Policy Office

Staff successfully supported the strategic requirements of the municipal transportation program by the following achievements:

- completed discussion and policy papers on the development and application of strategic planning in urban transportation and on the improvement of the planning and program process;
- completed position papers on new transportation opportunities and initiatives on transit ridership, aging and transportation, multimodal terminals and rapid transit strategy in Kitchener, Waterloo, Cambridge and Niagara Falls/St. Catharines;
- supported MTC on the development of a regional transportation perspective for the greater Toronto area and positions regarding several rapid transit and land development proposals; and,
- managed the urban transportation assistance program which provided technical and financial support for studies in several municipalities throughout Ontario.

Transportation Demand Forecasting Office

Staff made a concerted effort with other ministry offices and municipalities to accomplish the following objectives:

- completed the comparison of the 1971 and 1981 place-of-residence and place-of-work relationship, identified the changes and the causes of changes, and distributed the information to municipalities;
- influenced the federal government to retain the 1986 census program, and the place-of-work question;
- completed the joint assessment of GO-ALRT demand forecasts with the municipalities;
- continued improving the demand forecasting techniques by conducting such research projects as area isolation and non-work travel demand;
- continued monitoring land use and travel behaviour changes by conducting origin-destination surveys on highways and GO Transit services, and developing a time series data base; and,
- continued providing input to meet the data needs of the ministry's highway, regulation, municipal and provincial transportation programs for planning and delivery purposes.

Intercity Transportation Policy Office

Personnel continued to represent the interests of Ontario's public transportation and private vehicle passengers through research, analysis and policy development work which involved:

- position papers relative to the line-haul bus system, regional air service, high-speed rail investment and tourism considerations;
- policy proposals for bus industry re-regulation and the bus/rail fare relationship;

- completion of a task force study on the role of the automobile and a report on the impediments to its effective use;
- continued encouragement of municipal and commercial participation at intermodal terminal sites and an agreement for a first demonstration at Gravenhurst;
- additional surveys of northern Ontario automobile passengers to broaden the information base of previous multi-modal investigations;
- created a carrier working group to focus on opportunities of bus/rail co-operation; and,
- published two volumes of a three-part perspective on provincial public transportation, and a report on public mode fares.

Goods Distribution Systems

Staff developed specific activities in line with current strategic directions and supported the achievements of ministry objectives, particularly related to economic growth.

Emphasis was directed to promoting the efficient export of products to the U.S. market through improved transportation distribution. This involved close liaison with the Ministries of Industry and Trade and Northern Affairs. Major program elements included:

- advisory service to small Ontario export-oriented shippers to resolve their transportation/distribution problems;
- promotion of Ontario interests related to federal legislative changes, e.g., Crow, National Transportation Act;

- establishment of a satellite office in Timmins to provide advice to northern Ontario businesses on the effective movement of raw materials, finished products and consumer goods;
- began the process of opening a second satellite office in Thunder Bay;
- undertook numerous plant site location studies to encourage the establishment of new manufacturing plants in Ontario;
- completed an analysis of the competitive access of southern Ontario shippers to international air cargo services;
- promoted the demand for computerized goods transportation information services, resulting in services being introduced on a commercial basis; and,
- continued support at the federal level for the concerns of Ontario's oilseed crushing industry regarding the subsidy of western competitors.

Rail Office

Staff was responsible for advocating and co-ordinating Ontario's interests in all rail-related activities, including promoting and assisting in the development of a suitable provincial rail transportation system for both passengers and freight. They were also involved in a large number of programs such as: abandonments and discontinuance assessments; branch line rationalization; review of the level and quality of passenger services; regulatory activities; freight issues; promotion of intermodal services and service development; safety issues, and operations and technology.

An important development was the completion of phases I and II of a joint federal/provincial study of the transportation needs of communities presently served by VIA Rail in

northern Ontario. It was sponsored by MTC and Transport Canada with Ministry of Northern Affairs (MNA), VIA Rail and Manitoba participating.

A number of outstanding abandonment applications were investigated including CPR's Port McNicoll and Kingston subdivisions.

Staff continued investigation of acquiring abandoned rail corridors either for MTC, or other government agencies, to protect viable future corridors; and with Ministry of Natural Resources (MNR) completed a report recommending acquisitions.

The first draft of the Ontario rail plan was completed and distributed for specific consultation purposes.

Staff were closely involved in passenger-related issues particularly through a submission to the Minister of

Transport Canada's rail passenger action force which set out the province's position on VIA services and legislation for the rail passenger agency. Liaison with the States of New York and Michigan was continued.

Staff also participated in a task force on commuter rail legislation and negotiations with the federal government; Thunder Bay rail issues task force; the railway cost of capital study and submission and attendance at follow-up hearings.

Submissions were also made to the Canadian Transport Commission (CTC) regarding CN-CP's acquisition of ConRail's Canadian assets and the potential for shortline rail operation in Ontario.

Staff worked in a group of committees to define policy and implementation of projects affecting public transportation modes, including the rail, bus and intermodal committees. They also represented Ontario on VIA's regional advisory council.

Personnel continued to be involved in rail safety issues, particularly transportation of dangerous goods, railroad crossing and the discontinuance of caboose usage. Other regulatory issues involved inter-switching limits, common rate making, impact of Staggers Act on Canadian shippers and carriers, domestic deregulation, commuter and passenger rail legislation, freight rate issues, and railway operations and technology.

Air Office

Staff was responsible for policy and program development of air transportation in Ontario. The activities of the office were divided into three broad sub-groups: remote airport development, municipal airport assistance, and air transportation influence.

The remote airport development program consisted of the development and maintenance of a system of public airports in remote areas of northern Ontario. Capital funding was through the Ministry of Northern Affairs and maintenance funding through MTC.

Staff was responsible for the development of policy and standards, preparation of multi-year programs and monitoring of current programs. The system now includes 20 operating airports with two more under construction.

Staff also assisted municipalities in developing and maintaining a system of airports to facilitate the movement of people and goods and support economic development. Presently, it covers the entire geographical area of the province.

Staff also assisted municipalities in planning, designing and the operation

of their airports and entered into agreements with them for requested subsidies towards construction projects and maintenance expenditures. The program, supplemented by funds made available through BILD, was made available to 46 municipalities.

A major staff function was the monitoring of the level of air passenger services in Ontario. This involved, in part, an assessment of air carriers' applications for new and improved air services submitted to the CTC, the federal agency responsible for licensing and regulating commercial air service activities.

The following special policy issues continued to be addressed during the past year:

- urged the federal government to resolve jurisdictional complexities related to airport zoning and airport land use development;
- initiated a study to review the use of airspace to all aircraft operators and air carriers in order to improve navigation, landing, weather and communications aids in Ontario;
- monitored and reacted to federal government initiatives with respect to the new domestic air carrier policy which simplifies regulatory procedures, provides airlines flexibility and encourages

competition;

- promoted Toronto as a gateway centre for international air passenger and cargo services in order to enhance trade and tourism opportunities for Ontario; and,
- monitored and reacted to federal government initiatives related to airport licensing policies, airport regulations and improvements of federal airports in Ontario.

Personnel were involved in implementing the Ministry of Health's system of medical emergency heliports. They continued to develop standards and provide assistance and guidance related to site selection and licensing procedures.

Staff continued to support the flight planner for Ontario, where flight schedules of local and regional air carriers operating within Ontario are listed in the teleguide system. They continued to distribute the Ontario Airport Facilities map, intended to provide information to users as to the location of all significant Ontario airports and the facilities that existed at each location.

Staff also initiated a program of increased use of passenger surveys to acquire a better understanding of the needs and expectations of air travellers in a constantly changing environment.

Marine and Pipeline Office

Continuing to fulfill the responsibility of representing Ontario on matters relating to marine and pipeline facilities and services, staff maintained appropriate liaison with provincial, federal, private and international organizations.

Major programs and activities recommended by the Great Lakes/Seaway Task Force continued. A large portion of these activities involved the celebration and promotion of the 25th anniversary of the St. Lawrence Seaway.

The seaway anniversary logo was developed for this occasion and used extensively on ministry materials including letterhead, brochures and the official road map.

A travelling marine showcase visited 18 locations in Ontario, providing an opportunity for thousands of visitors to view exhibits relating to the past, present and future of the Great Lakes/Seaway. In addition, a marine display within the ministry's bi-centennial information trailer was shown throughout the province at 17 fairs, exhibitions and special events between June and October.

Personnel also provided assistance and funding for the production of the "The Great Lakes/St. Lawrence Seaway System," a major bilingual information publication, and the

production of a 14-minute promotional film: "The System," along with information and promotional posters.

The final report of the "Ontario Ports Study" was completed in June and distributed to appropriate government and marine officials. An Ontario shipyard demand study was completed, and investigations continued into port pricing practices in co-operation with federal and other agencies.

Staff participated in and supplied information for the federal task force on deep sea shipping, and played a major role in promoting the interests of Ontario's shipyards which are the most efficient in Canada.

They also undertook a study profile of marine carriers, clarifying the importance of this industry to the province and Canada; participated in the Great Lakes/St. Lawrence Marine forum meetings, bringing the Ontario viewpoint before representatives from eight American Great Lakes States and Quebec.

In January, the Marine & Pipeline Office joined representatives from Ontario, Quebec, the eight Great Lakes States and Seaway agencies, for a maritime trade mission to England, France, Holland, Germany and Belgium.

GO-ALRT Program

GO-ALRT was established in 1983 by the Ontario Government to provide improved transit service to the municipal regions between Hamilton and Oshawa.

Two route corridors were developed and total over 200 km. The lakeshore corridor from Hamilton to Oshawa was the major emphasis for initial implementation. It consisted of two sections: Hamilton-to-Oakville and Pickering-to-Oshawa.

Program Management

During 1984-85, continued program direction was achieved through a senior management team drawn from MTC, GO-Transit and UTDC.

Fixed Facilities

Design standards were made available for all components of the fixed facilities work. A major review of station design concepts resulted in the selection of a basic station configuration and in the preparation of station design standards.

Provincial Highways

Central Region

Construction

The twinning of the Burlington Bay James N. Allan Skyway continued well ahead of schedule. The segmental portion of the structure was completed in 1984 and the entire project expected to be completed in early fall of 1985. Roadwork in the vicinity of the skyway from Hwy. 403 to Hwy. 2 continued, with completion in early 1985 expected. This project was one of several in the Burlington-Hamilton corridor.

Construction of Hwy. 406 in the St. Catharines area was completed, as was Hwy. 55 from QEW to Niagara-on-the-Lake.

Rehabilitation of the historic Grand River Bridge in Caledonia completed the current work relative to the Caledonia by-pass.

In the Toronto area, the Hwy. 401, 427, QEW rehabilitation effort continued, with projects at the intersection of Hwy. 427 and 401 and QEW work from Hwy. 427 westerly to the Credit River.

The core-collector extension westerly was in progress in the Hwy. 401-403 area, to be completed in summer of 1985. Other major projects were underway on the Brampton by-pass and Hwy. 427 from Rexdale Blvd. northerly to Albion Rd.

The sound barrier program continued with several projects throughout the region.

In the Port Hope area, work was concentrated in three major areas. Hwy. 404 construction continued with award of a grading project from Bloomington Rd. northerly and Hwy. 35/115 progressed from Hwy. 2 to Tanton Rd. on the south end and from the Queensway to Hwy. 7B in Peterborough.

Engineering and Right-of-Way

A total of 38 projects were designed and cleared for contract advertising, covering all types of highway improvements throughout the region.

Emphasis for design of major freeway projects continued particularly in the Burlington Beach corridor, Hwy. 410 to Brampton and on Hwy. 35/115 in the Peterborough area.

The design of rehabilitation projects, including bridge deck rehabilitation, was completed on Hwy. 401 west of Yonge St. and a similar program

started on Hwy. 401 to the east of Yonge St.

Major planning studies were started for Hwy. 6 between Ancaster and Caledonia and Hwy. 6 from Freelon to Guelph.

Municipal

Staff was responsible for managing the municipal roads programs, including overall budget control for the subsidy and King's Highway connecting link programs in central region.

During the year, 115 municipalities and six Indian Reserves received regular subsidies under the Public Transportation and Highway Improvement Act.

In 1984-85, the office administered a connecting link program involving 33 construction projects with a provincial contribution of approximately \$3,928,000 and \$461,000 for maintenance in towns and villages.

Maintenance

In the year preceding March 31, 1985, the highway network grew approximately 76 two-lane kilometres to a total of approximately 5,140.

Hot mix patching was carried out in all three districts for a total of 35,079 tonnes.

Another severe winter saw 156,115 tonnes of salt and 237,501 tonnes of sand used in the winter maintenance activities.

On Toronto district freeways, emergency patrols drove approximately 798,000 kilometres, provided assistance to 23,512 motorists and dispensed 8,950 litres of fuel.

Drivers and Vehicles

Driver Examination and Driver Improvement

Staff conducted 265,936 pre-test examinations and 201,063 road tests for driver's licence applicants. As well, 439,132 temporary driver's licences were issued. The driver improvement counsellors conducted 12,565 demerit point interviews, 153 medical hearings, 253 accident repeater interviews, 10 school bus, and 103 medical waiver hearings.

Licence Issuing

Licence issuing office staff located in Toronto, Oshawa and Hamilton dealt with 346,691 transactions.

Vehicle Inspection

Staff checked 17,025 commercial motor vehicles both at truck inspection stations and carrier terminals. Of these, 3,990 vehicles were detained, removed from service or tagged unfit. A total of 30,116 cars and light trucks were inspected at either permanent or portable lanes and 1,607 vehicles were removed from service. Approximately 2,393 school purpose vehicles and 1,260 commercial buses were inspected. Also, 6,206 investigations of motor vehicle inspection stations were conducted.

Highway Carrier

Personnel inspected 1,014,166 commercial motor vehicles which resulted in 10,127 court convictions.

Road and Bridge Sections	Road Kilometres	Approved Expenditure	Subsidy Paid
1. Metro Toronto	728.4	51,664,900	24,638,900
2. Regions	3,573.3	73,983,800	38,866,500
3. Counties	1,476.3	13,400,600	9,822,700
4. Townships and Indian Reserves	8,378.6	31,465,700	17,054,700
5. Urban Municipalities	16,151.0	237,954,600	102,811,900
	30,307.6	\$408,469,600	\$193,194,700

Eastern Region

Construction

Major widening and resurfacing of the Ottawa Queensway from Maitland Ave. easterly to Bronson Ave., started in 1983, is anticipated to be completed in 1985.

Reconstruction of Highway 507 from 11 km south of Highway 503 southerly 6.4 km was completed in October 1984.

The Moira River, Salmon River and CNR structures, all in the Belleville area, were rehabilitated.

Eastern region supervised construction on two reconstruction contracts within central region, Highway 30 from Codrington northerly 6.7 km and Highway 503 from Kirkfield northerly 3.1 km.

Reconstruction or resurfacing was also carried out on Highways 16, 17, 30, 417, 511 and 523.

Engineering and Right-of-Way

Staff prepared 19 capital construction projects for contract award in 1984. An additional 15 miscellaneous projects were also processed.

The ministry completed the Highway 416 environmental assessment report — one stage submission, group "A" project for submission to the Ministry of Environment for review and approval under the Environmental Assessment Act (EAA). A planning study of Highway 417 (Ottawa Queensway) from Maitland Ave. to Acres Rd. was instituted re the widening of Highway 417 in conjunction with the construction of the OC Transpo transitway. Planning was in progress for the section of Highway 417 from east of Main St. to east of Belfast Rd. along with a planning study of Highway 17, Champlain St. interchange easterly to

Navan Rd. Design was well underway for the Highway 417, St. Laurent interchange. An inter-ministry staff team, composed of members from MTC and Natural Resources, plus the St. Lawrence Parks Commission, along with outside agencies was formed, and is studying the enhancement of the Loyalist Parkway, Highway 33 from Collins Bay to Trenton.

Municipal

A total of \$94,919,510 in subsidies was paid to nine counties, one regional municipality, 139 townships, 63 urban municipalities, three Indian Reserves, and several unincorporated municipalities. In addition, \$2,353,660 was spent on 23 connecting links, and \$2,783,977 on 16 development roads.

Provincial contributions were also made to: four municipal ferry services — \$937,800; 92 municipal traffic signals — \$1,051,690; two municipal airports — \$341,511; special sidewalk projects — \$89,476.

Maintenance

Major winter activities consisted of 1,583,058 km of snowplowing, application of 97,826 tonnes of salt, and the spreading of 73,633 tonnes of sand.

Summer maintenance activities included 4,091 km of centre-line painting, and 4,093 km of edge-line painting. A total of 906 trees and 1,315 shrubs were planted and 14 hectares were seeded with grass. Approximately 2,550 dead and dangerous trees were removed; 3,529 hectares of weeds and brush were sprayed. Traffic signal work included four new installations, three modifications, and installation of two flashing beacons. A total of 84 new light units were installed, with 161 others modified. Two ferry services were operated. The Wolfe Island

service made 12,060 trips carrying 324,607 vehicles. The Glenora service made 20,517 trips carrying 264,890 vehicles.

Permits were issued for 623 building projects, 78 entrances, nine encroachments, 521 field advertising signs and 246 guide signs.

Drivers and Vehicles

In the fiscal year 1984-85, driver examination staff conducted 103,174 pre-examinations and 48,840 road tests for driver licence applications. Driver improvement counsellors held 3,159 demerit point interviews, 77 hearings and 46 accident repeaters.

Vehicle inspection staff performed 3,059 commercial motor vehicle inspections, 1,687 motor vehicle inspection station investigations, 2,166 school bus inspections, 462 other bus inspections. The mini portable inspection program inspected 1,099 automobiles.

The regional highway carrier program, in spite of continuing constraints, inspected 175,238 commercial motor vehicles at truck inspection stations and within designated area patrols.

Regional investigation and prosecution staff completed 1,120 commercial vehicle report investigations.

The two MTC licence issuing offices, situated at Ottawa and Kingston district offices, completed 194,266 vehicle related transactions. In addition, region personnel supervised the day-to-day operations of some 53 appointed licence issuing agents.

The fully automated vehicle registration system became more efficient, with less downtime and technical difficulties. And ministry staff and appointed licence issuing agents became more proficient in its use.

Southwestern Region

Construction

Construction of Highway 403 between Brantford and Woodstock continued with the award of two contracts for the paving of a further 22 km from Highway 24A westerly.

Contracts were awarded for complete reconstruction of Highway 7, from Shakespeare easterly 6.7 km; Highway 12, from Atherly narrows westerly 6.8 km; Highway 70 from Shallow Lake northerly 7.1 km; and, for improved safety, a curve revision on Highway 4 north of Port Stanley, and major improvements to the intersection of Highways 9, 10 and 24.

Resurfacing with minor widening of the existing roadway was carried out on Highway 2 from Chatham westerly

33.4 km and Highway 89 from Cookstown to Alliston 12.2 km. Included in these contracts was the replacement of three structures on Highway 2.

Resurfacing contracts were awarded on Highway 4, 61.3 km; Highway 6, 9.3 km; Highway 7, 47.0 km; Highway 8, 7.9 km (including replacement of the Black Creek Structure in Sebringville); Highway 9, 24.2 km; Highway 10, 2.1 km and Highway 59, 22.4 km for a total of 174.2 km.

Rehabilitative work was performed on a total of 20 structures at various locations on Highways 2, 4, 7, 9, 401 and the Kitchener/Waterloo Expressway. Landscaping contracts were awarded on Highway 3N at Essex

and St. Thomas on Highway 402 from Strathroy easterly and on Highway 11 in Oro Township.

As part of the Region's "weight control program", weigh scale sites were established on Highway 7 at Wyoming, Highway 7 east of Shakespeare and Highway 6 north of Guelph.

Municipal

A total of \$133,977,200 in subsidies was paid to counties, regions, cities, towns, villages, townships and Indian Reserves.

Approximately \$5,570,000 was expended on 42 connecting link projects and \$53,600 for a single development road project.

Maintenance

In addition to routine summer maintenance, traffic signals were replaced or upgraded at eight locations; 10 municipal sidewalk construction projects were subsidized; and the preventative maintenance program of sealing cracks in asphalt pavement continued.

Site improvements were carried out at five patrol yards and three new sand domes were erected. One of the domes was an experimental structure constructed of steel trusses and covered in fabric.

A relatively heavy winter was experienced again last year, but continued good results were reported with our one-person plow trials. Slope improvements to reduce snow drifting were carried out again along sections of highway in Stratford district.

Drivers and Vehicles

Staff conducted 79,977 road tests for driver's licence applicants, up 8.7 per cent from last year, and 119,732 pre-examinations, an increase of 3.1 per cent. As well, 37,952 replacement driver's licences were issued. Driver improvement counsellors completed 6,500 demerit point interviews.

Vehicle inspection staff performed safety inspections on 8,760 commercial motor vehicles both at truck inspection stations and carrier terminals. Commercial vehicles were required to meet the standards set out under the Canadian Vehicle Safety Alliance

memorandum of understanding. Also, 2,136 school purpose vehicles were inspected, along with 779 commercial buses. A total of 6,466 cars and light trucks were dealt with at mini-lane operations. This inspection program resulted in plates being removed or surrendered from 1,980 vehicles. As well, 958 complaints were investigated in respect to the motor vehicle inspection station (MVIS) program.

In addition, vehicle inspectors had to prepare for the start-up of the propane inspection program which was administered by both MTC and the Ministry of Consumer and Commercial Relations. Scores of stations were signed up in order to participate in the inspection aspect of the program commencing April 30th, 1985.

It was the second year in which numerous information seminars were held throughout the region for mechanics and licensees registered in the MVIS program. Since routine audits of motor vehicle inspection stations were no longer carried out, the seminars prove to be most beneficial in ensuring good communication links.

March 1st marked the regionalization day for the issuing of prorated plates to commercial motor vehicle owners participating in the Canadian Agreement on Vehicle Registration (CAVR) system. This activity, since its inception, had been carried out strictly by head office. It was a further step toward providing "one-window" service.

Highway carrier staff inspected 881,607 commercial motor vehicles, resulting in 9,392 convictions.

three cities, 35 towns, seven villages, 81 townships, three improvement districts and 17 Indian Reserves.

Also administered was \$3,970,000 for 20 connecting link projects and \$1,570,000 for five development roads.

The BILD program provided \$195,900 for job creation funding of six projects.

Within the unincorporated area, \$4,073,900 was provided for maintenance and construction on local roads within the unincorporated areas including 112 local roads boards, nine statute labour boards, and numerous special and specific projects.

Maintenance

Summer work was carried out on 5,750 km of King's secondary and tertiary highways. Two ferries were operated at Moosonee and Gardiner. In addition to routine maintenance operations, projects for gravelling, priming, surface treating, mulching, crack sealing and asphalt patching were completed.

Winter maintenance was carried out on most of these highways while privatization of the garage operation repair area continued. Snowplowing, using private units, was increased to 21 plows. Two two-bay additions to patrol garages and three sand domes were constructed. Operational efficiencies were pursued by closing three existing patrol yards and expanding others. Energy conservation was continued by several oil-to-gas conversions and the installation of new energy efficient doors in many patrol garages.

Northern Region

Construction

Major construction work continued on Highway 11, four-laning the Callander Bypass.

Construction also continued on Highway 144 New (Northwest Bypass); Highway 11 Severn Bridge, northerly; Highway 11 Hearst, westerly. Construction work began on Highway 11 Gravenhurst, southerly at Highway 11 (the Tilden Lake area).

Work was completed on Highway 535, Hagar southerly; Highway 63 at North Bay easterly; Highway 11B Haileybury to New Liskeard; Highway 637 west of 69 and Highway 583 Hearst southerly.

Paving and recycled paving was completed on Highway 69 French River northerly, and Highway 101 Matheson easterly.

Structure rehabilitation work was completed on Highway 11 west of Cochrane (Buskegau River); Highway 11 south of Cochrane (two structures) and Highway 169 Bala area (four structures). Structure rehabilitation work continued at Highway 11 west of Cochrane (Fredrickhouse River).

Structure work was completed at Highway 11, Crooked Creek Bridge and Highway 11 at Kenogami.

Engineering and Right-of-Way Office

Staff completed 21 projects (contract plans and documents) for a value of \$33,731,000. Approximately 92 per cent was done in-house and 8 per cent by consultants.

They also carried out property acquisitions for the capital construction program and continued with legal, engineering and geotechnical field survey operations to facilitate the program. As well, they carried out environmental and corridor-control activities and provided input into the ministry's pavement management system.

Municipal

Last year, various road assistance programs amounted to \$43,991,000 for 149 organized municipalities. These included one county, two regions,

Drivers and Vehicles

Staff, under the direction of the regional office, was divided into two districts: North Bay and Timmins. They served the provincial districts of Parry Sound and Nipissing; the district municipality of Muskoka; the provisional county of Haliburton; the districts of Timiskaming, Cochrane, Sudbury, Manitoulin Island; the regional municipality of Sudbury and the easterly portion of the district of Algoma.

A staff of 66 employees was responsible for driver examination, motor vehicle licence issuing, driver improvement counselling, vehicle inspection programs and enforcement of the Highway Traffic Act, Public Commercial Vehicles Act, the Public Vehicles Act and Motor Vehicle Transport Act.

Twenty-five driver examiners and clerical support conducted a total of 19,868 road tests and 39,547 examinations at nine driver examination centres and 19 travel point locations.

One regional review officer, responsible for driver improvement counselling, conducted a total of 976 interviews with drivers who had reached the nine demerit point level and conducted a total of 12 hearings.

Twelve vehicle inspectors conducted 4,440 commercial vehicle inspections, 630 school purpose vehicle inspections, 89 inspections of church buses, transit buses, physically disabled passenger vehicles, and highway buses.

They also conducted a total of 1,153 audits and investigations of licensed motor vehicle inspection stations, as

well as operated portable mini safety inspection lanes which resulted in the inspection of 2,331 light trucks and cars.

A total of 462 vehicles were removed from service for safety-related defects. The audits, investigations and inspection of motor vehicle inspection stations, commercial vehicles and passenger and light truck vehicles, resulted in a total of 525 charges laid under the HTA.

Twenty highway carrier officers conducted a total of 108,265 inspections at five permanent truck inspection stations, four audit truck

inspection stations and eight patrol areas. A total of 3,854 reports in suspected violations were completed, with 3,009 resulting in court action.

One motor vehicle licence issuing office maintained by two ministry employees in North Bay, conducted 42,419 transactions.

The supervisor, motor vehicle licensing agents, conducted 38 audits. As well three new agents were trained in the vehicle registration system. The supervisor also conducted 12 investigations, relating to public complaints and agent concerns.

Northwestern Region

Construction Office

During the past year, work continued on stages two and three of the Kenora by-pass. On Highway 11 east of Fort Frances, a major resurfacing project, incorporating recycled asphalt, was completed. Work was completed on a structure spanning the English River on Highway 105. This structure eliminated the use of the hydro dam to carry traffic. The reconstruction of Highway 590 from Highway 588 northerly 9.8 km was completed, which resulted in reducing several steep grades. Meanwhile, work continued on the Bending Lake Road which, upon completion, will link Atikokan with Highway 17 west of Ignace.

In the Sault Ste. Marie area, major grading projects commenced on Highways 631, 532 and 556. The new structure over the Goulais River on Highway 532 was completed.

Engineering and Right-of-Way Office

During the 1984-85 fiscal year, Northwestern Region's engineering and right-of-way office delivered contracts for approximately \$40 million worth of construction. The work comprised 16.6 km of new construction, 107.1 km of reconstruction, and 49.3 km of resurfacing for a total of 173 km. The program included two new structures and rehabilitation of 11 others.

Staff also provided technical advice during construction of ministry contracts, as well as to municipalities throughout the region.

Precontract engineering activities were carried out on a scheduled basis in support of future construction programs.

Access Roads Office

Summer and winter maintenance was cost-shared with main user companies on 293 km of industrial roads and 69 km of tertiary roads. In addition, administration and control took place over 478 km of recoverable

access road maintenance and nine access road construction projects.

Municipal

During the year, 70 municipalities and 11 Indian Reserves received regular subsidies amounting to \$16.9 million. Staff undertook 10 connecting link projects at a cost of \$.9 million, and one development road project totalling \$500,000. Some \$3 million was provided to 116 local roads boards, eight statute labour boards, 34 Indian Reserves (11 in the remote north), and other informally organized groups involved with public roads outside MTC's jurisdiction.

Maintenance

Routine summer and winter maintenance was performed over 5,800 km of King's, secondary and tertiary highways. In addition, capital maintenance projects, including bridge and culvert repairs, prime and surface treatment and maintenance crushed gravel were undertaken.

Remote Northern Transportation Office Construction Program New Airports

Kasabonika — construction 100 per cent complete;
Cat Lake — construction 70 per cent complete;
Muskrat Dam — purchased equipment and moved in;
Ogoki — equipment and partial material purchased, moved in; and,
Kingfisher — partial equipment purchased.

Total value \$1,609,700

Existing Airports Upgrading

Various activities carried out for upgrading purposes at 11 airports. Activities such as:

- runway restoration;
- winter gravel hauls;
- security fence;
- water wells;

- access roads;
- runway lights; and,
- buildings.

Total value 466,600
Grand total value 2,076,300

Maintenance

Routine summer and winter maintenance was performed at 20 remote airports.

Grand total value 2,661,400

Reserve Roads Program

Carried out reserve road work at five remote settlements.

Grand total value 2,696,200
MTC Share 34,800

Drivers and Vehicles Office

Vehicle Inspection

Section staff completed 4,025 mechanical fitness inspections on commercial motor vehicles. In addition, 2,868 vehicles were checked at safety lanes held throughout the region. There were 801 inspections performed on school buses.

Highway Carrier

Staff checked 82,853 commercial vehicles, resulting in 3,230 charges being laid.

Driver Examination and Driver Control

Staff conducted 19,216 pre-test examinations and 10,360 road tests for driver's licence applications. The regional driver improvement councillor conducted 1,031 demerit point interviews and eight medical hearings.

Licence Issuing

Office staff processed 54,709 transactions. In addition, 30 agents processed vehicle transactions throughout the region.

Engineering and Construction

Highway Engineering Division

Engineering Materials Office

Foundations Design Section

Foundation investigations were carried out and the appropriate reports for foundations design and construction were prepared on a total of 74 structure and earth/rock work projects. Of these, 53 were done by in-house staff, and 21 by geotechnical consultants working under staff direction. In addition, 62 foundation reports for inclusion in construction contracts were prepared. Preliminary and final foundation design drawings were reviewed for 79 projects scheduled for construction in the next two years. Specialist advice and service was provided to MTC, municipal and certain other agencies on all aspects of foundations design and construction. This included some 22 MTC and municipal construction problems where site inspection by senior staff was necessary to provide recommendations for immediate remedial action. Such projects included embankment and other earthwork failures, culvert and tunnel dewatering problems.

The foregoing includes 22 foundations investigations for the GO-ALRT system of which 15 were conducted by consultants working under the direction of the section and the remainder by in-house staff. Foundation feasibility studies were carried out on the Oakville-Hamilton and northern system projects.

Eleven different instrumentation projects were monitored to determine settlements due to rock fill compressibility and consolidation of compressible subsoil. Also, a detailed instrumentation project was in progress to monitor properties of the geogrid installed as a soil reinforcement system on an embankment slope at a gradient of one horizontal in one vertical.

Chemicals Section

Staff continued its activities related to the maintenance and updating of the

designated sources list of materials used in highway construction and maintenance operations; the provision of expertise (advice, trouble shooting) and evaluation/testing/inspection services for all regions and various head office units; the review of the policies and procedures for structural maintenance painting and provided the technical input for the new MTC Forms 911 and 912 that cover the coating of existing and new structural steel.

Technical reports were published on: an evaluation of polyurethane coating systems for structural steel; an evaluation of new formulations of non-coning traffic paints; technical data on current MTC approved structural coating system.

Personnel completed an evaluation of currently available engineering grade reflective sign sheetings and a comparison study of coated versus non-coated (galvanized) road safety barrier panels used by International Barrier Corp.

Concrete Section

Staff continued to play a major role in the bridge rehabilitation sub-program through reviews of regional procedures, provision of technical assistance to regional staff, participation in various MTC committees, and development of rehabilitation techniques. Development projects were completed dealing with latex modified shotcrete, concrete repair materials and concrete sealants.

A draft performance specification for concrete strength has been prepared with the help of an industry task force from the Ontario Road Builders' Association and the Ready Mixed Concrete Association of Ontario. It will be used on two trial contracts in 1985. Programs to promote concrete mix design by the industry and increased use of the private sector for concrete field testing were continued and expanded.

The durability of new concrete continued to be a major concern. A project was started to compare the relative strength and salt scaling resistance of various cements used in Ontario. Testing of aggregates was continued to identify sources which might cause disruption of concrete by alkali-aggregate reaction.

Staff was heavily involved in testing bridge expansion joints and bearings. Staff continued to participate with the structural office in the development and specification of these products.

Soils and Aggregates Section

The computerization of the mineral aggregate inventory was virtually completed. During the next fiscal year it will be possible to issue aggregate sources lists for contracts using this system.

The ministry introduced lists of approved concrete aggregates in each region. Only approved aggregates can be used on contracts with concrete items. This policy was developed to prevent the use of alkali-reactive aggregates.

Sampling procedures for granular materials were reviewed by means of comparative field studies. New sampling procedures were prepared to allow the ministry to defer the implementation of universal road sampling, while ensuring adequate acceptance controls for granular materials are incorporated into our work.

An extensive study was undertaken on the problem of alkali-carbonate reaction found in concrete in eastern Ontario. As a result, substantial changes to the current acceptance specifications for aggregates susceptible to this problem were recommended. A new, rapid, chemical test for preliminary screening of these aggregates was also proposed.

A number of new laboratory test

procedures were developed and evaluated in the laboratories. These included a freeze-thaw test, a petrographic examination procedure for fine aggregate, and a point load strength for aggregates developed in co-operation with the research and development branch.

Bituminous Section

Support for program delivery activities was provided through mix design work, mix testing, asphalt materials testing and problem evaluation. Long term monitoring of recycled hot mix was an ongoing activity and a method developed for the determination of the recycling ratio and asphalt cement grade to produce acceptable recycle hot mixes.

Work continued on the development and implementation of performance specifications. An acceptance

procedure with price adjustment for liquid asphalts, emulsified asphalts and emulsified asphalt primers was implemented. Tentative acceptance procedures were developed for bridge deck waterproofing thickness and hot mix asphalt cement content and gradation. Contractor mix sampling and pavement coring was specified on 13 contracts to provide new data on new sampling procedures. An acceptance procedure for pavement segregation was implemented.

In support of Ontario industry, a trial of new in-place pavement recycling equipment was organized and monitored, a trial section pavement reinforcement material built and monitored and lignosulphonate; a waste by-product of the pulp and paper industry was evaluated as a dust palliative. Trials of double surface treatment without prime which began in 1983 were continued with excellent success.

established and chaired the guide rail review committee to review and update the policy and application of traffic barriers and energy attenuators in light of the shift to lighter vehicles.

A total of 31 noise barrier sites were analyzed and a further 50 were reprioritized. The first draft of the noise barrier design manual was completed.

Development of the Tender, Analysis and Payment System (TAPS) continued.

Design applications staff prepared new and revised contents for the geometric design standards manual and the contract design, estimating and documentation manual; provided continuing expertise in geometric and detail contract design; participated in the development of the tender analysis and payment system; provided detail guidelines and seminars on the implementation of Ontario provincial standards in MTC contracts; and lectured at the municipal road design course.

Drainage and hydrology staff issued the following material of the MTC drainage manual: introduction to highway sub-drainage; the second edition of design flood estimation for small watersheds and a revision package to hydraulic design of culverts. Training seminars on three chapters of the drainage manual were conducted in all the MTC regional offices. Improvements to five drainage design programs were completed with the co-operation of the computer systems branch.

Environmental Office

Staff was responsible for the development and co-ordination of natural and cultural environmental policy, procedures and guidelines for the ministry's programs and agencies.

Interpretation and clarification relative to identified environmental policy and technical matters were provided to the regional planning and design sections, municipal office, air office, maintenance branch, communications division, Toronto Area Transit Operating Authority, GO-ALRT, and the Urban Transportation Development Corporation.

Monitoring of the effectiveness of developed internal policies and procedures for the ministry's one-stage environmental assessment report approach, as opposed to the former two-stage submission process, was initiated.

The new provincial highways program class environmental assessment document submitted to the minister of the environment for acceptance and approval, pursuant to the Environmental Assessment Act, in the previous fiscal year, was amended to address concern identified during the

Highway Design Office

Staff was responsible for six major areas of highway design policy; highway standards; design automation; design evaluation and pavement; design development; design applications and drainage and hydrology.

Highway standards staff issued most of the Ontario provincial standards and the greatest part of the standards contracts were implemented. They were also responsible for the commencement, management and maintenance of the review and revision of various standards, with the formation of various specialty committees comprising members from the Municipal Engineers' Association, Ministry of the Environment, Consulting Engineers of Ontario, industry and MTC. Work continued on MTC standard special provisions and the monitoring of regional developed special provisions.

Design automation personnel continued to provide direct support to users in the regions, municipalities and design consultants with respect to engineering systems application. They also produced new user's instruction manuals for SDUPDATE and TAPS as well as revised versions of the SYS 050 (road design) operations manual and typical examples manual.

The majority of the CAD (design) project was completed with the integration of SYS 050 and MOSS road design systems and the acquisition of two-colour video terminals for quick display and interactive cross-section

editing. Two CAD (drafting) pilot systems were acquired from ACDS Graphic Systems of Hull, Quebec, through a grant from the Technology Opportunity Fund.

Design evaluation and pavement staff processed and approved approximately 120 criteria for design projects.

A unit cost reporting system was introduced to provide senior management the ability to project design expenditures.

Trial projects undertaken as part of pavement management pilot study phase 2, were successfully completed. A comprehensive program to evaluate the portable universal roughness device, used for measuring pavement roughness was carried out. Pavement roughness measurements were conducted on 1,750 km of highways. Pavement skid measurements were carried out utilizing a brake force trailer at 175 sites on 1,760 km of highways. The number of tests was 11,700. A paper on performance prediction for pavement management was presented at the North American Pavement Management Conference.

A total of 65 municipal structure designs were reviewed for hydraulic and hydrological suitability, and eight structures on King's Highways were investigated and reviewed for monitoring purposes.

Staff continued to provide expert advice and assistance to regional planning and design staff on highway design policy matters. The section

review process. An exemption order was prepared and approved to extend the existing class environmental assessment process until the new document receives approval to ensure the ministry's construction program was not delayed.

Work continued on the preparation of environmental technical guidelines and policy. The factor areas of surface water, fisheries and aquatic biota and socio-economics were initiated for future incorporation into an environmental reference document for use in highway program areas. The surface water and fisheries and aquatic biota guidelines will be completed early in the next fiscal year. For these and other environmental factors such as noise, groundwater, salt and heritage matters, staff provided expertise to internal ministry units and external agencies.

The office's technical development section continued the development of an environmental quality control program for MTC. Staff were also involved in the monitoring of contract packages, field inspection of construction and painting contracts, the preparation of environmental specifications, an assessment of the environmental implications of the ministry's maintenance operations and the provision of presentations of environmental considerations to construction and maintenance staff.

Staff also co-ordinated the review of numerous environmental reports of other government agencies and the private sector to ensure that adequate attention was given to ministry policy and programs.

Surveys and Plans Office

Section staff continued the development of policy and procedures for automated survey systems for engineering applications. Three "total station" systems were acquired — one in each of the southern regions. Training programs were progressing with respect to field procedures and the processing of digital data for highway design purposes.

Control surveys established and evaluated 528 horizontal control monuments on the Ontario co-ordinate system; 123 horizontal control stations were established for construction; 164 precise bench marks on geodetic datum were established and added to the vertical control system.

The legal documentation group examined 830 legal plans and 822 km of highway were designated as controlled access. The total is now 8,356 km. Staff training continued in surveying and drafting with four regional staff successfully passing qualifying exams.

The photogrammetry and remote

sensing section was responsible for photogrammetric plans, cross-sections, terrain models, mosaics and remote sensing development projects. During the past year, 635 km of aerial photography was flown at various scales by contractors for nine mapping and three non-mapping projects. With respect to engineering plans, the section delivered 108 plans as follows:

- medium scale (1:2000); 6 plans — in-house;
- large scale (1:1000 and 1:500); 68 plans in-house and 34 plans by private companies; and,
- 11 cross-section projects completed in-house.

Remote sensing staff produced 1,415 m² of mosaics and related products and 1,331 requests for image library services were processed. They also prepared another report in the series related to environmental surveillance.

The cartography section completed three major mapping projects during the past year viz: two of the Ontario Transportation Map Series (i) Map #5 — South-Central Ontario, (ii) Map 8 — Eastern Ontario, and (iii) the wall maps for southern and northern Ontario.

They also completed 81 requests for cartographic services resulting in 240 new base maps and 180 base film duplicates. There were five base film sale agreements.

Structural Office

Last year, only 17 new bridge designs were required, down from 25. All except two were designed in-house.

With the completion of construction of the new Burlington Bay James N. Allan Skyway well ahead of schedule, plans for the rehabilitation of the old structure were brought swiftly to completion. This involved a thorough examination and analysis of every structural member. Future contract work will include replacement of the entire concrete deck and railings and strengthening of a number of structural steel members.

The work load in other respects remained much the same. But the decline in design work permitted a 7 per cent staff reduction and an increased effort in the areas of

structural maintenance and management. The first edition of the new Ontario structural inspection manual was issued and is used for all ministry structures.

Significant progress was achieved in planning the merging of several structural data banks used by various MTC branches and the inclusion of the structural inspection data in the resulting computer operated data base. This will provide a more highly organized and up-to-date method of handling bridge maintenance and management data than exists elsewhere.

The number of new municipal bridge designs checked was 187, very close to last year's figure. Other municipal approvals work included 121 culvert

designs, review of 194 load-limit bylaws and 96 field inspections. Rehabilitation was a major part of the work and included two stone arch "heritage" structures and over 40 major repairs.

In developing the Ontario modular bridge analysis system (OMBAS), needed to facilitate full adoption of the Ontario Highway Bridge Design Code for municipal projects, some schedule slip proved to be unavoidable, yet work is now proceeding satisfactorily and the current "code" edition was used successfully for a year on ministry projects.

Staff received awards of excellence from the Prestressed Concrete Institute and the Post-tensioning Institute for the design of the Twelve Mile Creek Bridges on Hwy. 406 at St. Catharines.

Research and Development Branch

Branch staff continued to serve as a resource to the ministry, undertaking projects in co-operation with, and on behalf of, clients requesting services and expertise. The traditional association with Ontario consultants and universities was maintained under the Ontario joint transportation and communications research program (OJT&CRP).

On the national and international level, staff were asked to participate in conferences and joint projects with many other jurisdictions, often under the auspices of the Transportation Research Board or the Roads and Transportation Association of Canada (RTAC). Of particular interest, many papers and presentations were prepared for the mission to Saudi Arabia outlining our activities in such fields as pavement management, bridge research and vehicle weight control.

Personnel also received technical and research missions from the U.S., Switzerland, Taiwan, Finland, Great Britain, Japan, Australia and West Germany.

Pavement Research

Work was begun to collect data on the effects of heavy vehicles on pavements. This was part of MTC's contribution to development of uniform standards for vehicle weights and dimensions across Canada — an RTAC project. Data acquisition equipment was obtained and strain measuring instruments installed in pavements on Hwy. 7, Peterborough, and Hwy. 403, Brantford.

Researchers at University of Toronto completed the first phase of the OJT&CRP project on stabilizing dispersions of polyethylene in asphalt cement. Results were encouraging. Industry was interested and patents may be possible.

At the University of Waterloo, progress continued towards development of a system for automated detection of pavement distresses based on image processing technology. The edge detection algorithm software developed by the U of W appeared to be successfully detecting transverse and longitudinal cracking.

Under a Canada/Japan agreement for science and technology consultations, staff participated in a workshop on paving in cold areas at

Tsukuba Science City, Japan, and presented Ontario's experience. Also, papers on performance prediction models were presented to the North American Pavement Management Conference in Toronto.

Materials and Engineering System

Work continued on the use of cathodic protection to conserve and increase the life-span of bridge structures. Much development work focused on the Burlington Skyway where eight such systems were installed and instrumented to monitor corrosion activity. A second test site was constructed at the Leslie St. bridge (Hwy. 401, Toronto) to field test further improvements in corrosion protection technology. Research on the corrosion of rebars continued at the Brampton test site where portions of the old Appleby Line overpass bridge were subjected to experiments and closely monitored. As well, several projects were underway at Ontario universities in support of this program.

Increasing awareness of the effects of de-icing salt on the highway infrastructure and the environment was reflected in several areas of activity:

- A study of the potential of CMA (calcium magnesium acetate) as a feasible substitute for de-icing salt showed mixed results. The material seemed effective in some conditions, not in others. Under present manufacturing conditions, CMA is much more expensive than salt. CMA seems to have a much lower potential for environment damage and corrosion but all of the data was not in. A laboratory study was carried out to study the corrosion effects of CMA on mild steel rebars.
- In co-operation with the Ministry of Agriculture and Food, a study was begun to determine the effectiveness of special sprays to protect fruit tree buds from air-borne salt spray from adjacent highways.
- A long-term study to measure the rate of corrosion in weathering steel bridges was initiated.
- Papers were presented to a number of technical societies and several reports issued on salt and corrosion-related matters. These included the remaining volumes of the Bridge Deck Rehabilitation Manual and one called "Sprinkle Lightly — Salt and Alternatives for

Highway De-icing" which outlined the current state of controlled use of road salt. The latter report was sent to municipal officials across Ontario.

Other activity included studies of geotextiles to stabilize embankments, snow drifting control, and improved drainage design for bridge decks and highways.

Structural Research

Staff continued an active program of bridge testing to ensure the viability and strength of Ontario's highway bridge structures. Among those tested were across the Ausable and Conestoga Rivers, the Dunlop St. Bridge on Hwy. 400 at Barrie, and the Stephenson Bridge near Huntsville. Monitoring of special structures also continued. Of particular interest was the world's largest span soil-steel bridge, under construction on a county road near Guelph.

Staff participated in the Ontario Bridge Code Seminar to brief Ontario consulting engineers on the philosophy and procedures inherent in the second edition of the Code. A first meeting of the code committee was held to define work needed to prepare for the next edition of the Code.

Reports issued during the year included several on specific bridges tested. More generally applicable studies reported included the "Simultaneous Presence of Vehicles" and the feasibility of partial prestressing of concrete. Others included the application of the MTC spine girder design to transit guideways, the feasibility of deck slabs with one layer of prestressing, evaluation of safety indices in bridges, and the feasibility of integral abutment bridges for use in Ontario.

Highway Operating Systems

Much effort was devoted to improving the understanding and application of the principles of engineering economics to ministry activities. Staff contributed to a review and analysis of the SELECTRA multi-criteria decision support program. Work also continued on network optimization in support of MTC's pavement management system. This involved developing a new demand/optimization model and related in-house studies on project level economy.

New projects begun included a study of methodology and procedures for allocating subsidy funds to municipalities; and a York University study of capital spending alternatives for road surfacing.

Expertise in engineering economy and design of highway appurtenances was applied to an evaluation of the first year's performance of an experimental installation on Hwy. 400 of a new steel safety barrier design developed by International Barrier Corp. It involved video monitoring of accidents throughout the year. Ministry offices with expertise in areas such as maintenance, traffic management and engineering materials aided in the study.

Staff made a presentation to the Transportation Research Board in Washington of our ILUM1 lighting design program. And work was begun on converting ILUM1 to a microcomputer environment. In addition, luminance measurements were made of 31 refurbished signs on behalf of the traffic management and engineering office to assess the cost-effectiveness of the greater use of non-reflective facings.

Two papers were presented to the Canadian Acoustical Association — "Noise Emission Levels for Vehicles In Ontario" and "Absorptive Materials for Noise Barriers in Ontario." A revised version of the STAMINA 2.0 computer program for noise prediction was implemented featuring improved output, file handling and error messages.

Traffic Systems

Municipal traffic control system demonstration projects in Brantford, Waterloo, and Durham were completed. Although the final report was still in preparation, it was clear that traffic flow has generally improved and motorists experience reduced delays. The procedures and computer hardware and software developed for these demonstrations have great export potential.

Staff conducted a seminar on freeway traffic and freeway corridor traffic simulation models. A new project, "A Review of Corridor Traffic Models," was begun at the University of Waterloo. Staff also participated in a three-day RTAC seminar on development of new procedures for two-lane rural highway traffic prediction, control, and determination of user benefits.

A draft overview study of artificial intelligence and its potential for application to MTC activities was completed. Possible applications included security control and obstacle detection for automated transit systems. Also, a final report was

received for CNCP Telecommunications on laser communications field trials. This has great potential for urban traffic control systems which have a large demand for timely information on real-world, real-time events.

In a more down-to-earth field of endeavour, a staff paper on "Pedestrian Risk Taking" was accepted for publication during the proceedings of the seminar on risk research held at University of Waterloo.

Technology Applications

The group objective was to improve the implementation of research findings and new techniques into ministry practice. Systems under development included a functioning model of a centralized, mainframe-based information system called TIES (technology information exchange system).

The first application modelled a library of information on new transportation-related products. In preparation for full implementation, the group acted as a clearing house, actively obtaining and exchanging information on new products and materials as a service to both MTC and private sector manufacturers who feel their products could improve the efficiency and effectiveness of ministry operations. Other candidates for TIES include the designated sources manual, and other cross-referenced information.

Finally, group staff acquired a technical publishing unit as a result of organizational change in the transportation technology and energy branch. For this report, activities of the Technical Publishing group were reported under TT&E branch.

Contract Management Office

Staff were responsible for the development of new policies and procedures related to contract management, quality assurance, manpower management and staff training required for MTC construction activities.

The major thrust for these policy matters included:

- development of performance specifications;
- monitoring contract administration and payment procedures; and,
- contract document review process.

Staff were responsible for the preparation of final tendering documents for 227 contracts, and providing the official interpretation and clarification to contractors during the bidding stage.

Verification of quantities supporting

final MTC payments to contractors by the regions was carried out on 195 capital contracts.

Estimating and Engineering Claims

Staff (36) prepared the ministry's official cost estimate on 284 contracts having a tender value of \$243,586,911.27. Recommendations for award were made to senior ministry officials on 279 contracts and non-award in five.

They assisted ministry regions by providing construction cost comparisons to assure cost effective highway designs.

As well, personnel provided technical input to internal committees/task forces and co-operated with consultants and governmental agencies both provincial and federal on construction cost-related matters.

They also acknowledged and analysed all major engineering claims submitted by contractors against capital and maintenance contracts; prepared settlement recommendations for the deputy minister's approval.

And, personnel monitored and assisted regional directors in the resolving of claims within regional authority; supplied engineering claims expertise to ministry, municipalities, consultants and contractors on request.

Property Office

Policy and procedures for appraisal techniques, acquisition of property, the rental, management and disposal of surplus lands and the quasi-legal aspects of the purchase of real estate in the title-searching and conveyancing functions were developed by office staff.

Using these policies and procedures, staff in five regional offices negotiated 879 amicable property settlements. The ministry expropriated 209 properties to obtain title for land required to permit contracts to proceed. Appraisals and acquisition of properties required for the GO-ALRT project were underway.

MTC spent \$10,342,652 in payment of compensation while acquiring title to lands required for highway projects. An additional \$207,005 was paid to owners affected by expressways, subject to cost-sharing agreements between the ministry and municipalities involved.

Revenue of \$5,355,636 from the sale of surplus lands and \$643,689 from leasing properties were received.

Personnel carried out six periodic audits of the regional property sections to ensure adherence to proper policies

and procedures and, in addition, provided technical advice and expertise when requested by regional staff.

The staff has responsibility for the resolution of all outstanding claims which may proceed to the Ontario Municipal Board, Land Compensation Office for arbitration. The ongoing caseload involved about 70 properties with decisions handed down, or negotiated settlements procured, in

about 25 cases during the 1984-85 fiscal year.

Another major responsibility was to monitor and review property appraisals carried out by regional staff and fee appraisers. This involved some 132 desk reviews of which 14 were arbitration appraisals. An additional 42 field reviews were carried out, of which 10 were regional requests, 22 were reviews of staff appraisal reports, the

balance of 10 were arbitration reviews.

Through the office's training program, a four-day agents' seminar was held. And 41 staff participated from both this ministry and Ministry of Government Services. In addition, an intermediate agents' course was provided for three agents who were successful in passing the qualifying examination.

Highway Operations and Maintenance *Maintenance Branch*

The branch was reorganized in 1984 into the maintenance planning and maintenance operations offices, the maintenance human resources planning and development unit and signs and buildings permits section. The mandate is to provide functional management of the ministry's highway maintenance activities to ensure the continued preservation and operational viability of the provincial highway system. This is carried out by establishing policies and standards, allocating available funds and exercising functional direction over the delivery of the maintenance activity.

Maintenance Planning Office

This office comprises the maintenance management and the budget and allocation sections, plus a planning and analysis unit.

The first sustained the computerized maintenance management information system which provided maintenance managers with support in running the ministry's maintenance activities.

Section staff continued to implement changes to the system based on the recommendations made following an extensive review of the system for generating district maintenance work plans. Implementation of a maintenance daily work report was undertaken, replacing the bi-weekly report in an effort to decrease peaks in the administrative workload. A review of the potential use of hand-held computers for remote data entry was made with a view to conducting a pilot study in the coming year. Personnel conducted training programs with regional and district staff to help in the implementation of system changes.

Budget and allocation section personnel were responsible for developing and recommending to branch and division management, the appropriate division of the sub-program's funds among various regions and head office units.

Planning and analysis unit staff played a major role in co-ordinating the branch contribution to MTC's strategic planning process.

Other activities by office staff included leadership of a task force to develop policy guidelines for privatization in maintenance; and participation in modifying the management by results process.

Maintenance Operations Office

This office consists of four specialized units: landscape planning; landscape operations; special maintenance services, and maintenance operations analysis.

Maintenance Operations staff established and monitored operational policy and standards, provided technical expertise and training, and led and co-ordinated operational and administrative improvements.

During the past year, office personnel took a more active role. They increased its membership and participation on various committees to emphasize maintenance concerns and priorities relative to design and application of specifications, evaluation of new products, techniques and government-wide issues.

Support and contribution to the pavement management system continued. Personnel developed an evaluation process for districts to use in monitoring crack-sealing effectiveness.

Extensive testing was made of durable pavement marking material especially for application on high-volume intersections.

Staff was active on a committee involved in developing a weather forecasting system to improve assignment and management of winter maintenance operations.

A research study was initiated through the University of Guelph to evaluate the ministry's tree-planting techniques and maintenance procedures and recommend alterations to the planting specifications. This study will continue for the next four years.

Staff were instrumental in modifying a snowplow marker for concrete median barrier systems — more visible to motorists and requiring reduced maintenance.

They also provided input to projects on the capital construction program by producing inventory assessment and interpretation of vegetative and aesthetic factors during preliminary and detail design stages. Design advice was provided on some 90 projects.

Staff completed 25 landscape plans for tree and shrub planting on newly constructed routes, including planting designs to enhance noise barrier locations and freeway interchanges.

Equipment resources were reviewed, enabling districts and head office to better plan future needs and acquisitions.

Office staff continued to monitor and evaluate the initiative of one-person snowplowing — a concept which has increased over the past two years.

A new method of applying reflectorized glass beads to roadway paint was tested. Evaluations will take place over a specified time period to

determine the effectiveness and the product's durability.

Unusual soil conditions were encountered on a northern highway, which made reclamation of the right-of-way using conventional grasses impossible. Through soil testing and evaluation, a site-specific seed mixture was prepared and applied. The results were positive; the highway right-of-way was re-vegetated, reducing the possibility of erosion.

In response to MTC's corporate direction to privatize various maintenance activities, a specification was developed for use by contractors in applying herbicides to highway rights-of-way. Four contracts utilizing this specification were awarded and the operations will be monitored to assess their practicality and success.

Winter maintenance seminars were presented to some 500 staff to ensure awareness of ministry policies and practices. Approximately 35 candidates from the various MTC district offices attended a landscape technology seminar, designed to inform them of the current state of the art in the landscape operations field. In addition, a week-long course in roadside vegetation management was held for the benefit of municipal employees from across the province.

At the request of the Ontario Vegetation Management Association, staff organized a field demonstration for over 120 people to show the various types of spray equipment utilized by MTC for weed or brush control.

Staff also improved communications with the nursery supply and contracting industry by meeting with selected firms and the provincial trade association to discuss nursery supply and ministry landscape specifications.

Other projects included preparation of information material for presentation at various highway seminars both national and international; providing the GO-ALERT program with a review and monitoring function of landscape architectural issues; assisting the Ministry of Natural Resources in a rationalization of rest/picnic information sites on provincial highways; and participation on the nuclear emergency planning committee.

Maintenance Human Resources Planning & Development Unit

Unit staff planned, guided, directed and evaluated the human resources element of the ministry's maintenance sub-program. They were also responsible for co-ordinating and providing direction in the development of training programs for 2,700 maintenance staff.

A human resources long range plan was developed for the maintenance sub-program. It identified staff training needs in contract management, employee labour relations and computer applications.

During 1984, personnel assisted the Operations Office in providing some 500 maintenance staff, including 50 staff from municipalities in the Hamilton area, with winter training seminars.

Signs & Buildings Permits Section

Section staff provided policy, procedural and technical expertise to senior management, the five regions and 18 districts.

The number of permits issued in all areas, including building and land use, access, field advertising signing, location signing, encroachments, etc., increased over 1983. New building permits issued for 1984 had a

construction value of \$434,536,570, almost double last year's value.

During 1984, Signs and Buildings Permits staff developed and tested a new computerized recording system for encroachments permits and agreements. It will also provide the annual billings for the 18 districts.

The issue of utility relocation cost-sharing was addressed and an acceptable framework for cost-sharing was developed to be implemented in 1985.

Personnel continued to review the wide range of new high tech advertising devices and sign types. Contact was made with many Ontario organizations to ensure that MTC's commercial sign policy reflected the needs of the users as well as sign manufacturers, while protecting the highways' operating integrity and natural aesthetics.

Finally, the changeover from the old black-and-white recreational/resort signs to the new more pleasing chocolate and white sign assemblies was successfully completed.

Traffic Management and Engineering Office

Staff activities were directed toward maximizing the safe and efficient use of the highway for the travelling public, through the development and application of appropriate policies and standards, the development of technical leadership and provision of advice to regional and district staff, municipalities, other highway authorities, and the legal and justice community.

Together with the traditional engineering function of traffic analysis, signing, signals, electrical design and maintenance and accident data management, personnel placed a significant emphasis on the development of advanced technology applications through freeway traffic management and electronic control systems projects.

Work on the freeway traffic management systems (FTMS) area continued to be shared with the private sector, through the use of engineering consultants and contractors. This partnership promoted the development of new Canadian high-tech products and developed expertise in the private sector, which will then become well positioned to undertake similar work across Canada and worldwide. The operation and development of the existing eastbound QEW system in Mississauga continued with the successful introduction of a Canadian

made system 170 controller for ramp metering purposes. Construction also began on the FTMS for the Burlington Bay James N. Allan Skyway.

The FTMS used a new fibre optics communications subsystem, now under development. A Canadian contractor was being selected to undertake the design, manufacture and installation of this high tech component.

Preliminary design for the Highway 401 system was presented to the public, who expressed strong support for the project at a series of public information centres. Work also continued on the preliminary design for the Ottawa Queensway FTMS.

The conversion of SSTOP, a Canadian traffic signal network optimization program for use on a microcomputer, was completed early in the year. Since then it has been distributed to a number of road authorities, consultants and universities both in Canada and the U.S. A resultant new activity was the considerable technical support and consulting advice provided to the SSTOP users, especially during their introduction.

A reference manual for all aspects of traffic signal operations went into preparation.

A number of initiatives were undertaken concerning the Canadian

built system 170 traffic controller, including hardware modifications to reduce lightning damage, software modifications to permit linking with the Mississauga traffic control system; and a maintenance manual and training program to assist field staff in the operation of the equipment. Additional software development was completed to utilize the 170 system as the field processor for the freeway traffic management system.

Traffic control system projects were underway in Windsor, Burlington, Mississauga, Brampton, London and St. Catharines, following the completion of feasibility studies subsidized by the ministry. Communications studies were completed in Metro Toronto and the Region of Waterloo.

New standards and specifications for high-mast lighting were completed and a maintenance manual was under development. A permanent test facility for lighting equipment was designed for 1985 installation at the John Rhodes Centre.

Electrical design services were provided for numerous projects installed by MTC staff or contractors in all regions except central.

A major review of the highway signing policy was undertaken in two parts: part I, highway and municipality signing was completed, resulting in improved signing for municipalities and road intersections to be implemented in 1985; part II, tourism signing was initiated.

Some special signing and new signing policy and standards projects were completed (or under development), including signs for the Papal visit; Burlington Bay James N. Allan Skyway; municipal police; intermediate airports; child restraint and others. Work on revisions to the manual of uniform traffic control devices was nearing completion.

Traffic devices development activity included testing or evaluation of raised pavement markers; microprocessor based roadside data gathering equipment, IBC median barriers and guidrails. Studies were initiated to review a number of issues including standards for pedestrian crossovers, effectiveness of paved shoulders and passing lanes, survey of seat belt and child restraint usage, and policies on the use of highways for special activities such as film making and bicycle races.

Financial and technical assistance was provided to municipalities for traffic operations studies in Simcoe, Trenton, Smith's Falls, Trenton and Cambridge. Studies related to the installation or upgrading of computerized traffic control systems included Windsor, Regional Municipality of Niagara, Sault Ste. Marie, Metro Toronto and Cambridge. A review of the traffic operations studies program was begun

with a view to updating the policies and procedures for initiating and conducting these studies.

Work was also initiated on a number of computer systems, including the

accident data system, the potential for a regional computer development, and the automation of 14 permanent counting stations for the collection and processing of highway traffic data.

Equipment Engineering Office

This office consisted of a new equipment, fleet management, equipment design and development and records and administration sections plus the government garage and fleet service at Queen's Park, and head office equipment garage in Downsview.

Staff of the equipment engineering office were responsible for developing policies and supplying training for the operation, selection and repair of MTC vehicles and road maintenance equipment.

They supplied equipment to the districts and monitored a computerized fleet management system to ensure control and economy in fleet operations. Personnel wrote policy manuals and provided technical advice, technological guidance, training courses, design and development assistance, and miscellaneous services to the 18 district offices to help them do their jobs more effectively and efficiently.

New Equipment Section

Staff purchased and distributed the required fleet mix according to the 1984-85 plan, within budget. After careful scrutiny of the need and, in light of budget constraints, equipment to the value of \$7.2 million was procured.

This capital investment was comprised of 24 cars, 186 small trucks, 50 large trucks, 11 loaders, 40 sanders and various other pieces of equipment, such as trailers, tractors, wood chippers, aerial devices, rollers, catch basin cleaners, etc.

Staff also inspected this equipment for compliance with MTC specifications and examined equipment designated for replacement. Old equipment was re-distributed, scrapped or sold by auction. They continued to evaluate new types of equipment, respond to ad hoc visits from suppliers and attend trade shows and field trials, to stay abreast of the market.

Fleet Management Section

Some 16,500 pieces of equipment were inventoried on the computerized equipment management system which

recorded fleet usage and operating costs and provided management reports. Policies governing the operation and maintenance of the fleet and the district garages were established and monitored.

Personnel updated the training program for ministry drivers and equipment operators on the reversing of vehicles. Safe driving was supported and promoted through the provincial safe driving roadshow, successfully organized last fall at the Downsview complex. Nineteen winners from the district roadshows qualified for the event. Bob Vernon (Toronto district) was winner for the third consecutive year, a unique achievement in the history of the roadshow.

Three rental rate schedules to charge out the use of municipal, district and head office equipment were updated and distributed. Advice on them was provided to internal ministry units and municipalities. New policies and procedures on licensing and training of vehicle operators, equipment reversing and rustproofing the fleet were established. Technical staff continued to develop programs and conduct training courses for MTC garage supervisory staff, garage tradesmen, equipment operators and municipal roads staff.

Design and Development Section

Designing and building special equipment was the responsibility of this section comprised of an engineering and drafting group in the office and a machine shop for manufacturing or modifying equipment.

The major project last year was the construction of two large, highway lane-marking machines, known as zonestripers, to be used at Burlington and Owen Sound districts. They were added to MTC's 19-unit fleet throughout the province, all of which were built in Downsview.

Each of the current generation machines evolved to apply the latest lane-marking paints at high levels of productivity. They were built on a tandem axle, diesel powered, truck chassis with a gross weight of about 50,000 pounds. Carrying capacity was

1,000 gallons of paint and 4,000 pounds of reflective glass beads blown into the freshly applied paint to provide night-time visibility.

A furnace, regulated by automatic controls, heats paint to about 150°F just before it is sprayed on the road. The specially formulated paints were designed to form a strong bond and dry quickly so they won't be smeared and tracked by vehicle tires.

Since the machine can paint up to three lines at a time on both sides of the machine, two operators were required, in addition to the driver. They were located in the pressurized, air-conditioned cabs in the rear of the machine, just above the paint and bead-gun carriages.

All zonestripers were followed by a well-marked backup vehicle. One of these may have what appears to be 20 oil drums suspended behind the tailgate. They are crash 'attenuators', also built in the equipment office machine shop, designed to absorb the impact of any rear-end collisions.

Another interesting project was the designing of a tunnel washing machine to clean tunnels under the Welland Canal, the largest of which is half a mile long and four lanes wide. It was estimated there will be substantial labour savings over current methods. Energy savings will be realized because less lighting will be required in the tunnels when the walls are clean.

Records and Administration Section

Office automation was evident during the past year. Two Wang word processors, two terminals accessing the main-frame computer and an IBM personal computer were installed in this office to expedite data retrieval and manipulation for management studies speeding up the internal decision-making process. This micro-computer was recently used to add the vehicle licence plate numbers to each MTC vehicle on the equipment master file, and develop information for the ministry's fuel contingency plan.

EEO staff assumed full responsibility for the operation of the equipment management system from the computer systems branch. This resulted in a savings of approximately \$25,000.

Improved staff productivity resulted from the utilization of the word processing systems to store information such as equipment specifications, rate schedules, task force reports, job specification and performance appraisals.

A micro-computer was procured for the equipment stores to provide a computerized inventory control system.

Head Office Equipment Garage

This unit supplied and maintained a

fleet of 160 vehicles for head office and Central Region use. The fleet included such special vehicles as two-block trucks which carry 100 tons to test the strength of bridges; a unique aerial device which allows the workmen to inspect the underside of high bridges.

Last winter, before the start of each working day, section operators kept the parking lots and roads of the Downsview complex and Downsview OPP clear of snow.

Staff accepted, inspected and road tested new units of equipment, outfitted them with MTC numbers, and fire extinguishers and arranged delivery to the districts.

Government Garage (Queen's Park)

Equipment engineering staff assumed managerial responsibility for the government garage. Besides the chauffeur service they provide to clients at Queen's Park, they also supplied fuel and mechanical service to approximately 400 vehicles owned by other ministries and agencies.

This section employed 22 people, composed of six administrative personnel, one stockkeeper, three mechanics, two drivers, two garage attendants and eight chauffeurs, including the government garage's first full-time woman chauffeur.

Safety and Regulation

Transportation Regulation Operations Division

Coordinator of Resources Office

Personnel provided guidance and support for the management of financial and human resources within the safety and regulation program.

More specifically, financial staff were responsible for program budget preparation and monitoring expenditure, revenue collection, management reporting system developments and communicating with other MTC programs and government agencies. Human resources staff were responsible for assisting in daily staffing concerns, establishing program staffing policies and procedures, developing and maintaining the human resources long range plan and liaison with other ministry programs and government agencies.

Systems Improvement Office

Staff provided systems development and maintenance support services for all systems (both manual and computer) within the safety and

regulation program. Major initiatives were undertaken in the following key areas:

- systems development and maintenance relative to the vehicle registration system with 350 agents on-line across the province and major head office components in both Downsview and Kingston;
- ongoing maintenance and developmental support relative to the driver system and accident reporting system to enhance efficiency and affect savings, wherever feasible;
- continuing development and support of a comprehensive program-wide management reporting system and associated work measurement activities; and,
- business systems development support to the trucking regulatory reform implementation project (TRRIP).

Ongoing support continued in the development and maintenance of policy/procedure manuals and internal/external forms across the entire program.

development and implementation of new motor vehicle and carrier programs. Examples included co-ordination of Ontario's strategy in the creation of a nationally uniform code for the transportation of dangerous goods and the fuel system inspection program for propane fueled vehicles.

Personnel also provided technical expertise and worked out operational procedures and standards to assist in interpreting ministry policies on regulatory issues. The research and development of operational policies and procedures were documented and distributed in the form of policy directives.

They also developed, co-ordinated and conducted training courses for MTC's enforcement field staff. Various information posters and pamphlets were produced and distributed as part of the awareness programs. This information was disseminated to various federal and provincial agencies, the trucking industry and local governments. Technical and program information was also provided to industry, the media, general public and ministry's enforcement staff.

Carrier Licensing and Information Office

Staff was responsible for the monitoring of Ontario Highway Transport Board (OHTB) certificates for compliance with the Public Commercial Vehicles and Public Vehicles Acts and Motor Vehicle Transport Act (Canada); the issuance of operating and vehicle licences associated with the board issued certificates; the issuing of special permits for the movement of over-dimensional vehicles and loads, licensing of motor vehicle inspection stations, the issuing of safety standard certificates, dump vehicle and bus inspection stickers and propane stickers.

During the last fiscal year, there were 4,955 board certificates, 4,086 public commercial and public vehicle operating licences, 72,321 vehicle licences and plates and 3,888 special permits issued. Licences were issued to 10,503 motor vehicle inspection stations and 22,665 mechanics were registered. In all, 1,124,774 safety standard certificates, 135,113 dump vehicle and bus inspection and 41,560 propane inspection stickers were issued.

Compliance Branch

Promoting the regionalized delivery of a uniform and rational compliance program, branch staff were responsible for the carrier licensing and information office, office of special investigations, operational policy and standards office, weights and dimensions office and vehicle standards office.

The program was continually monitored to ensure consistency with governing legislation, policies, and procedures, provided coherent direction to enforcement officers with respect to compliance of economic regulatory control legislation and the Highway Traffic Act (HTA).

In addition, staff in conjunction with transportation regulation development aimed to ensure a program which reflects an awareness of Ontario's needs, relationships with other jurisdictions and the exchange of compliance information. Significant developments and new initiatives

within the transportation industry were also reflected, aimed at responding to those factors which contributed to or were detrimental to the development of Ontario's transportation industry which influences the mobility of goods and people.

Education, co-operation and communication with both the regions and industry were continually under examination and developed toward an effective program.

Operational Policy and Standards Office

Staff's main function was to assist and promote a uniform application of motor carrier regulatory controls. Administrators and policy officers assisted in the development of new or amended legislation and the

Weights and Dimensions Office

Staff provided consulting service to ministry groups engaged in the preservation of the highway system by the review and approval of permit applications. This involved the proposed movement of vehicles and loads exceeding routine guidelines for weight and dimensions, and advisory service to industry groups wishing to take maximum advantage of the transportation facility.

They also assisted in the development of weight enforcement strategies as they applied to both system and equipment needs.

Trucking Regulatory Reform

Trucking regulation has been under intensive review in Ontario for several years. In 1983, a new direction in regulatory policy was recommended by a committee of representatives from the goods movement industries. Their recommendations were documented in the "Responsible Trucking" report.

The new approach was subsequently endorsed by government, and the 1984-85 period was dedicated to developing the legislation and administrative mechanisms which could implement the new approach. This involved extensive consultations by mail and through committees, specifically on the subjects of licence simplification, entry tests, competency tests, leasing, commercial vehicle operator registrations, rate regulation and OHTB powers. Significant progress has also been recorded in consultations through the CCMTA (Canadian Conference of Motor Transport Administrators) toward making regulation between Canadian jurisdictions more compatible.

A large project was completed, analyzing enforcement administration at MTC. This formed the foundation for procedures to administer a commercial vehicle operator registration system and co-ordinate enforcement activity. The framework for specifying new operating authorities was completed in 1984 and pre-writing the conversion of all operating authorities was commenced in the fall. The prewrite process was three-quarters complete by fiscal year end.

In December of 1984, a draft of the new Public Trucking Act was tabled in the Legislature for public comment.

Office of Special Investigations

Office staff is mandated to provide special investigations, carrier control and enforcement support services for the carrier subprogram. It did this by carrying out a program leadership function, and providing direct program

delivery, in the above mentioned areas. It did this through its three sections as described below.

In its special investigations role, staff carried out complex and sensitive investigations as well as those referred to it by senior management and the regions. In addition, they conducted investigations in northern and northwestern Ontario and outside Ontario on behalf of the regional investigations units.

In its carrier control capacity, personnel was responsible for ensuring compliance pursuant to the PCV Act, the PVA, the Motor Vehicle Transport Act (Canada) and the HTA through means other than the court process; such as initiating operating authority referrals and vehicle registration and operating authority cancellation proceedings against 15 commercial vehicle operators.

In 1984, staff arranged for service of 709 summonses out of province related to prosecutions in Ontario. Co-ordinated regional and head office data also showed there were 2,331 charges pending before the courts.

MTC was faced with a multiplicity of changes in the compliance area, resulting from regulatory review and reform. Specifically, recommendations of the PCVA Review Committee, the Uffen Commission on Truck Safety, the Bus Committee, the influence of new Dangerous Goods legislation and the CVOR system, resulted in the need to examine the way the ministry delivered its compliance program, as it

related to commercial vehicles operating in Ontario. Consequently, staff is in a transitional phase, pending implementation of new reforms. Personnel, actively involved in and greatly affected by regulatory review, has redefined its role and mandate, as a part of these proceedings.

Vehicle Standards Office

Personnel provided consulting service, to MTC and other ministries, police standards and performance. It also recommended and assisted in the development of legislation and regulations.

Staff took leading roles in the development of propane vehicle inspection regulations and a national standard for public motor vehicles used in the transportation of physically handicapped people. They also took an active part on the technical steering committee responsible for a \$2.8 million national truck size and weight standardization project. In addition, they responded to a number of proposed new and amended federal standards affecting the manufacture of new motor vehicles.

Staff also assisted police in their investigation of a number of accidents involving heavy commercial vehicles, served as expert witnesses at the coroners' inquests and court trials, and responded to coroners' jury recommendations.

Transportation Regulation Development Branch

Safety Coordination and Development Office

Staff initiated and co-ordinated the development and implementation of a broad range of highway safety policies as well as providing consulting and support services to the Ontario Co-ordinator of Highway Safety.

Viewing seat belt and child restraint usage as a primary means of reducing the severity of trauma in motor vehicle accidents, staff co-ordinated a roadside seat belt and child restraint survey in May and June of 1984. The survey showed increased driver seat belt usage since the last roadside survey in 1981 (70 per cent compared to 60 per cent), a marked increase in seat belt usage by children, and a lesser increase in child safety seat usage. The misuse of child safety seats and the large proportion of infants travelling on adults' laps were

problem areas revealed by the survey. Strategies to address these areas of concern are currently under development.

In the area of driver education, staff published and distributed a new textbook "Roadworthy — Becoming a Responsible Driver" for use in Ontario's secondary school driver education program. The new text and course curriculum will also be distributed to commercial driving schools throughout the province. In the area of driver improvement, staff continued to evaluate existing and proposed programs intended to improve driver motivation to drive responsibly, and were instrumental in convening a workshop to examine the concept of graduated licensing for young drivers.

During the past year, staff developed educational materials to encourage voluntary usage of headlights on a 24-

hour basis and co-ordinated the passage of provincial legislation extending the required usage of headlights by one hour at dawn and dusk.

Motorcycle accident casualties continued to be a serious concern with 20 per cent more fatalities in 1984 than in 1983. A breakdown of 1984 fatal motorcycle accident statistics showed contributing factors continued to be alcohol, non-usage of helmets, and speeding. A seminar planned for April 1985 was expected to assist the ministry in developing new strategies to alter this trend.

Viewing bicycle safety as an emerging concern for the 80's, staff conducted a multi-year in-depth analysis on Ontario's bicycle accident statistics and trends and participated in a working conference on "Cycling and the Law" with police, bicycle manufacturers, government officials and cyclists. Information gained from these activities will provide a foundation for future strategies and countermeasures to improve bicycle safety.

In 1984, a study of the content and format of the police motor vehicle accident report form was carried out to determine options for better meeting the needs of all users of accident data, including the police. Based on recommendations from the study, MTC's accident data system will be reviewed to maximize efficiency in meeting these needs.

Other activities included the establishment of government/industry working groups to examine the issue of school bus safety and the operation of farm vehicles on highways. The problem of the drinking driver remained a serious one from the highway safety perspective and staff were extensively involved in working with other governments to develop and assess strategies in this area.

Bus Transportation Office

During the 1984-85 fiscal year, staff were responsible for the continuing government-industry-consumer bus committee deliberations. Thus, office personnel endeavoured to effect comprehensive and pragmatic policies towards a future regulatory structure for provincial intercity bus services.

Through the auspices of the bus committee, staff also examined a number of issues and options related to future public vehicle regulation — such as the separation of charters and line-runs, how public vehicle services should be regulated, economic deregulation of charters, and strengthening existing regulations. Consequently, the concept of reinforced linkage and cross subsidy between charters and regular routes was adopted for further consideration. The bus committee is now in a position to further develop this proposal for regulatory reform.

Personnel were also actively engaged in other significant policy issues, including examining whether subsidized urban transit properties should compete in the PV charter market and whether school bus operators should be exempt from the PV Act. Staff also participated in a review of the control that urban transit properties hold over sightseeing tours and charters within their designated municipal boundaries.

They also consulted directly with carriers contemplating major changes in services and/or tariffs as well as dealing with the concerned public about those same changes.

As a member of the CCMTA's bus working group, staff were instrumental in developing intercity bus accessibility guidelines for disabled travellers.

In response to a chronic shortage of operational and financial data on the

Ontario intercity bus industry, they initiated a joint effort with the OMCA, in order that useful and accurate information could be gathered to monitor and analyze the industry.

Personnel continued in their role of contact for carrier enquiries regarding issues of current concern to them. One major effort involved the administered prices program, which ensured that administered price increases conformed to established constraint criteria.

Staff reviewed safety concerns related to public transportation. One major initiative involved investigating the issue of overcrowding on transit buses to determine if any safety problems were arising.

Truck Transportation Office

In 1983, the PCVA review committee released its final report entitled "Responsible Trucking." Since that time, office staff and many others have worked towards the scheduled January '01/86 implementation date for regulatory reforms.

The trucking regulatory reform implementation project generated many assignments and studies. New legislation to replace the existing PCVA was developed and further legislation will be considered in the next legislative session.

This office continued to be involved in the development of recommendations contained in the 1983 final report of the Ontario Commission on Truck Safety by Dr. Uffen.

Additional reciprocity agreements were developed between Ontario and other jurisdictions to ease the movement of goods.

Licensing and Control Branch

The role of the Licensing and Control Branch was to enhance the safe and efficient movement of people and goods by regulating the qualifications and performance of drivers and vehicles. The latter was achieved by keeping accurate records of all drivers and vehicles, providing information and education on drivers and vehicles to the courts, law enforcement agencies, industry and general public. In addition, the branch was responsible for the collection and accounting of fees as established by regulation.

The branch is geographically split. All production-oriented functions, consisting of the following offices:

licensing operations, financial and stock, field support and support services were located in Kingston under the management of the production operations office. All service/support functions of licensing administration, operational policy, network support and driver improvement remained at the Downsview complex.

Licensing Administration Office

Staff was responsible for providing licence assistance services to the public respecting legislation, regulation, policies and procedures which support

the following provincial programs: driver licensing, driver improvement, driver instructor licensing, snow vehicle operator licensing, snow vehicle licensing, highway vehicle licensing and off-road vehicle licensing.

In addition, they provided search services of driver and vehicle records for the public, enforcement agencies and the courts; issued licences to commercial motor vehicles governed under the Canadian Agreement on Vehicle Registration (CAVR) in its prorated issuing unit; and, in its Downsview issuing unit, issued standard vehicle registrations for passenger and commercial vehicles, and trailers.

Operational Policy Office

Staff were responsible for development and documentation of new operational policies and procedures; the evaluation and revision of current operational policies and procedures; the monitoring of field and head office operations to assure consistency of the administration of operational policies and procedures; and staff training to meet changes in policy and procedures.

Network Support Office

Personnel were responsible for technical support to on-line equipment users of the vehicle registration system (VRS) network; monitoring performance of vendor and government service organizations; testing and requisitioning new equipment; maintaining equipment inventory and reassignment control within the VRS network; facilitating the installation, de-installation and relocation of licence issuing offices and, providing input to policy development for the ministry on agent handling and business relations.

Additionally, they maintained financial control (budget) over all distributed computer hardware and communication lines cost for rental and service changes and authorized payments to vendors for extra work performed.

Driver Improvement Office

Staff were responsible for ensuring adherence to standards established for the licensing of drivers and monitoring drivers' post-licensing activities. This was accomplished through the activities of two sections: Driver Control and Medical Review.

Driver Control personnel handled the maintenance and administration of the demerit point and probationary driver systems and administration of licence suspensions and reinstatements related to driver behaviour and attitude.

Medical Review staff were responsible for monitoring drivers required to file periodic medical reports as a requirement to maintain their class under the classified driver licence system; and drivers identified as having medical conditions which made it unsafe for them to operate vehicles. They were also responsible for the administration of medical-related licence suspensions and reinstatements.

Both sections contributed to the maintenance of an accurate cumulative operating record of each Ontario driver.

They also provided administrative support to the public other than Toronto and regional offices in handling more complex driver control and medical enquiries.

Production Operations

Staff was responsible for ensuring the effective operation of the branch's Kingston-based office; providing direction to the Field Support, Licensing Operations, Financial Control and Stock Management and Support Services Offices.

They also provided centralized training, production control and administrative services.

All offices were fully functional in Kingston after relocation from Queen St. and Princess St. to Counter St. in the spring of 1985.

Licensing Operations

This office consists of the following three sections:

Renewal Processing which provided Ontario's motoring public with a mail-in service for both driver and vehicle renewals;

General Issuing which processed all driver related transactions generated by the driver examination centres; and provided a mail-in service for transfers, corrections, changes of address, replacements, requests for application, own choice plates and name changes.

Driver and Collision Record Input which processed driver conviction transactions and reports of all collisions occurring in the province.

Financial Control and Stock Management

This office consists of two sections:

Financial Control, which accounted for and consolidated all revenue received through driver and vehicle production related activities, administered the issuance of refunds for both driver and vehicle programs, monitored the collection of replacement funds for dishonoured cheques, and were custodians of the profile data base for all issuing offices and driver examination centres.

Stock Management, which provided a stock procurement, planning and delivery function for driver and vehicle stock, forms and material was also carried out.

Field Support

Staff provided licence issuers and driver examination centre personnel with a direct, central and singular communications link for the resolution of procedural, legislative and policy interpretation. They also interfaced with a technical support group to resolve systems hardware/software and network communications difficulties.

Personnel, through resource access control facility (RACF), controlled the access security to the on-line vehicle computer network.

Staff audited and monitored the daily financial reporting activity of both the driver/vehicle offices. The performance of driver/vehicle policies/procedures compliance was also monitored, ensuring the on-line and manual submissions were accurate.

They also provided administrative support to the driver/vehicle office, informing them of financial discrepancies in reporting and initiating corrective action for incorrect procedural methods.

They also gave guidance and assistance to those offices experiencing difficulties in transacting business through the on-line vehicle system.

Support Services Office

Staff met the needs of production operations in Kingston, providing large scale data entry services, mail distribution, microfilming and retrieval capabilities and word processing. They also attended to the secure disposal of scrapped vehicle licence plates and documents.

Photo Implementation Project

A special project group of four was set up toward the end of the 1984-85 fiscal year to begin the planning and development work necessary to implement a photo driver licensing program in early 1986.

The design of all manual and computer procedures, the installation of camera and computer equipment in nearly 400 locations across the province and all the associated revisions to documents and forms was initiated.

The majority of work will be accomplished by utilizing the resources of existing offices within the safety and regulation program.

Finance and Administration

Transportation Capital Branch

Branch personnel were responsible for the effective management of all transportation capital investment resources. In addition, they provided highway planning, priority setting and programming services on a program-wide basis as well as scheduling and expenditure control for capital construction and ancillary highway investments.

The branch had three functional units: highway program planning, highway program administration and capital investments offices.

Highway Program Planning Office

Office staff were responsible for planning and co-ordinating the future development of the provincial highway program. The functions carried out included the development of provincial highways long-range plan and future highway network perspective; system analysis; development of infrastructure priorities; co-ordination and synthesis of highway planning information and management of the strategic planning process where applied to the provincial highways program.

In the development of infrastructure priorities, program priority and value analysis personnel carried out analysis of the current highway conditions; made forecasts of future rehabilitation needs and recommended spending directions and priorities to the government to maximize public benefits. Value analysis dealt with estimating the costs of various undertakings, and the resulting benefits to the public. This value analysis activity provided the basis for priority setting for the program.

The development of the future highway network perspective was undertaken by highway system analysis staff. They continued to monitor information related to highway capacity and levels-of-service; assessed future expansion needs; and advised the government on the required capacity expansions and its timing. To

accommodate public priorities in a more realistic fashion, a more detailed highway classification system was introduced. They also dealt with jurisdictional issues pertaining to the desirable highway system.

Information systems personnel collected, processed and synthesized information about the system and user to support the overall planning and management of the program. Much of it was published and made available to the public. Examples included the "highway distance table" and the "traffic volumes report." In 1984-85, significant advances in efficiency in data collection and more effective usage of such data was made through the automation of the highway inventory.

The manager of the highway program planning office served as program co-ordinator for the provincial highways program committee. Staff supported the committee activities through the preparation of material for consideration; including the position and prospects, program issues, while managing all other business associated with the committee.

Program evaluation was undertaken to assess the effectiveness in terms of measurable public benefits and provide information on the relative significance of various sub-programs.

Staff were also involved in the analysis of financial outlooks, public perceptions, major government priorities, human resource implications of automation and technology, strategic directions, privatization and other external factors, in developing the provincial highways long-range plan related to capital investments, operations and maintenance, design, and administration. Specific five-year directions were developed in various aspects of the long-range plan to ensure program products and services properly match future requirements and emphasis.

From March 17th through March 21st, 1985, the first North American Pavement Management Conference was held in Toronto, sponsored by the

ministry and U.S. Federal Highway Administration, in co-operation with the American Association of State Highway and Transportation Officials, the Transportation Research Board and Roads and Transportation Association of Canada.

Organization and management was undertaken by this office. Over 200 delegates attended from state and provincial highway departments, the U.S. and Canadian federal governments, universities, municipalities, associations, consultants and research institutions.

Most delegates were based in North America, but representatives attended from Europe and South America.

During the conference, presentations and workshops were held covering the range of issues from decision making, information gathering, technical methodology, through to the actual implementation of pavement management systems.

The results, published in three volumes of proceedings, will serve as a guide for highway agencies towards the development of their future pavement management plans and procedures.

Highway Program Administration Office

Staff were responsible for the administration of the highways program, including operational planning services, the construction plan, program budgeting services and construction expenditure control.

Operational Planning Services staff continued with the development of an operational planning and management process for the total highway program. Support services were also provided to various other program areas, such as: Ontario Highway Transport Board; structural management committee; Maintenance Branch.

A multi-year work plan was maintained to provide management with the information necessary to direct and monitor capital construction

activities in response to needs and developmental initiatives. The annual construction projects report provided the public and Legislature with a concise look at the fiscal year of the construction plan.

In-year expenditures were co-ordinated, monitored and controlled on a continuous basis and reported periodically to senior management. Advance notices for contract tenders were prepared and issued to members of the Legislature and press.

Special financial statements were prepared on initiatives funded by the Board of Industrial Leadership and Development and construction work carried out on behalf of the Ministry of Northern Affairs.

Scientific computer systems were used in the process of individual project control. Critical path method (CPM) construction schedules were provided as information to bidders on most major projects. The construction resources evaluation package (CREP), program construction integrated statistical file (PCISF), advanced program on line (APOL) and expenditure forecast system (X-FOR) were computer based systems utilized and will be rewritten in third generation systems language of FOCUS. Complemented by increased office automation this will allow greater flexibility in the provision of information needed for decision making purposes.

Capital Investments Office

Continuing fiscal restraint environment fostered greater care in decisions on capital investments funding and timing. This office was established to aid these decisions and co-ordinate corporate level capital investment information for five transportation programs: provincial highways, provincial transit, provincial transportation/air, municipal roads and municipal transit.

With the stronger emphasis on all transportation capital management, more comparable information and analyses on capital investments and trade-off opportunities was needed. Staff, therefore, provided consolidated capital planning and management information on active and proposed transportation capital investments. Analytical procedures were developed to provide appropriate corporate-oriented technical data.

A new multi-criteria priority evaluation system — SELECTRA — was developed to determine technical priorities for all capital projects. This micro-computer based system will allow considerable analytical capability in support of capital investment decisions.

Computer Systems Branch

The development of new automated systems and ongoing maintenance and support requirements for those in existence continued to grow at a relatively high level. Total data processing expenditures for the ministry for 1984-85 was \$26.9 million — an increase of approximately 25 per cent over the previous fiscal year.

Total branch complement remained relatively stable at 120. But a number of organizational changes occurred that involved the internal reassignment of staff. The most significant of these involved the regional liaison and production services office (RLPS). A declining workload in the data entry and production control units in conjunction with the introduction of new key-to-disk data entry technology required extensive staff retraining and reassignment. Planned organizational changes will result in the complete dismantling of RLPS over the next one-to-two years. Functional units within RLPS were incorporated into the organization of other branch offices.

Concurrent with these changes will be the creation of a new client support office to support the growth in end-user computing within MTC. This new office will consolidate all user support services currently provided, including the micro-computer resource centre, into one organizational unit. This anticipated change will provide better, more efficient delivery and focus for these services in MTC.

The total number of micro-computers in MTC was estimated at 140 units by year end. In anticipation of the increased demand for the development of micro-computer based applications, the branch initiated a major thrust to develop the required expertise to support this new technology. This involved the acquisition of appropriate equipment and training and development of selected programmers/analysts in each of the three development offices.

Other major activities of an administrative nature included:

- the implementation of a new branch billing and accounting system to replace the existing system which was in use for more than 10 years. It will allow ministry management to monitor the costs of maintaining and operating their automated systems on an ongoing basis;
- support and involvement of MTC staff in the Ontario government information technology strategy study. In addition to participating on a number of project committees/teams, one of CSB's senior

managers was seconded to Management Board of Cabinet for a period of 10 months to assist with the integration of project reports and preparation of the overall study document; and,

- completion of MTC's data security study in response to guidelines issued by Management Board Secretariat in January of 1984. Work is now in progress on a comprehensive Security Contingency Plan for MTC which is likely to be completed early in 1986. Other recommendations from the plan are still under consideration by MTC senior management.

Regulation Systems Office

Systems design, development and maintenance services continued to expand throughout 1984/85 to support an extremely active and aggressive workload in the safety and regulation program. That program is responding to public commitments to a photo driver licence system and revised approaches to trucking regulation.

Four major computer systems were established to support the administration of the Ontario Highway Traffic Act and the Public Commercial Vehicles Act with support for the proposed Public Trucking Act and Commercial Vehicle Operator Registration (CVOR) being incorporated into these major systems.

The systems, including driver licensing and control, vehicle registration, accident data and highway carrier licensing were supported, using the full-time services of 40 permanent computer professional staff and many private sector computer consultants who worked with the staff on a project basis. The office operated with an overall average of 36 per cent privatization throughout the year, significantly above the 25 per cent government standard, in order to meet its commitments.

Over 100 operational sub-systems were maintained within the four major computer systems. The continuing development activities within these systems brought public service components more closely together by merging the systems architectures under the vehicle registration system framework. Major redesign of the VRS communications network was undertaken to cope with these expanded requirements. At the same time, the level of service commitments to the public, police and courts were maintained.

Systems development activities also showed a significant increase in the use of prototyping techniques to help in clarifying business requirements and speed up development activities.

In summary, the major activities included:

- major systems design and development work to implement a photo driver licence system;
- major planning and preliminary design work for the commercial vehicle operator registration (CVOR) initiatives under the trucking regulatory reform implementation project;
- implementation of major enhancement releases for the vehicle registration and drivers systems;
- technical support for the huge data base environment being used with these systems;
- implementation of a new stock and financial system to maintain accurate revenue control over the millions of vehicle renewals and transfers each year; and,
- evaluation of the impact of a major review of the accident data system.

Transportation Systems Office

Staff provided systems design, development and maintenance services to three MTC programs: provincial highways, provincial transportation and municipal transportation. These services supported the following aspects of the ministry's engineering process: traffic management, transportation planning, hydrology, highway design, structural design, engineering materials, construction estimating and engineering research.

In co-operation with ministry managers, initiatives were undertaken to reduce unit costs and increase systems responsiveness. These initiatives included the introduction of micro-computers, the use of fourth generation programming languages and pilot studies in computer graphics. Liaison was maintained with other government agencies, universities and systems developers to exchange both expertise and software.

The major projects completed included the following:

- traffic data retrieval via telemetry from automatic traffic counting stations using a portable micro-computer;
- a construction equipment rates inventory referenced to geographical location to assist in estimating construction contracts;

- a pilot project to evaluate the potential of interactive computer graphics in the highway design process;
- assistance to the client in a pilot project to evaluate the automated drafting of highway construction plans;
- enhancement of the highway design system to handle the economical reconstruction technique of pavement recycling; and,
- addition of a column analysis capability to the Ontario modular bridge analysis system.

Management Information Systems Office

Staff provided systems design, development and maintenance services as well as client support to the MTC finance and administration program.

Approximately 38 operational systems were maintained in support of financial operations, work project management, the operations management system (OMS), MTC equipment management, MTC maintenance management, provincial highway inventory, human resources, performance budgeting and the CSB accounting system.

Personnel continued to transfer responsibility for systems operation from CSB to the users. Presently all systems are operated by the users, via on-line terminals at their own location.

Some major development projects are listed below:

- MTC Project Control: several systems allocating resources and monitoring expenditures for some 3,000 work projects within the highway program (transportation capital branch) were consolidated and replaced. A new on-line interactive data base management system improved productivity and provided the end user with the information required to conduct day-to-day business.
- Worker's Compensation Monitoring System, (WCMS); MTC/MNA and MNR occupational health and safety offices were utilizing the new Worker's Compensation monitoring system. The head office centralized system, running out of the Downsview computing centre, provided instantaneous information on claims mailed in from the regions/districts and invoices or award payments from the WCB.
- The Operations Management System, (OMS), was enhanced with the addition of a module to capture remote data for other ministry

systems via the OMS communications facility. It also provided easier access to management information. A "sign shop" sub-system was also implemented.

- A revised maintenance management planning system was implemented to simplify the preparation of the annual highway maintenance management plan.
- The human resources inventory system was enhanced to allow simultaneous update for all ministry programs.
- The equipment inventory system was automated for on-line data entry and validation and on-line information access.
- A new front-end facility was introduced in the progress payment certificate system to standardize preparation of payment certificates in all regions.

Planning and Technical Support Office

Staff provided technical support to branch development offices and ministry client offices in the effective use of information technology. As well, information technology strategic planning section staff published a series of strategic documents which contributed directly to the formulation of the ministry's strategic directions.

Other achievements included:

- The initiation of a ministry-wide data security project which will lead to a ministry contingency plan;
- The initiation of a study of distributed data processing requirements which will lead to a successor for the current operations management system;
- A comparison study was initiated to examine MTC's requirements for engineering computing facilities;
- Policy and procedures were developed for the acquisition of information technology. As well, a micro-computer policy was drafted;
- An enhanced MTC data processing budget and usage monitoring system was implemented to provide better information on information technology support; and,
- As part of micro-computer support activities, the technical support group handled the acquisition of 99 micro-computers for cost centre managers across MTC bringing the total to 140 micro-computers.

Regional Liaison and Production Services Office

Staff provided production support to MTC computer users, municipalities and engineering consultants working on ministry projects, including:

- Key-punched cards for batch systems were eliminated in the central data entry section, replaced by an on-line key-to-disk data entry system for all users;
- The transfer of responsibility to users for systems operation was achieved

and resulted in all system production support staff being transferred to other areas of the branch/ministry;

- Automatic plotter group produced engineering drawings for highway planning and construction projects; and,
- Library staff supported client requirements and development offices updating of systems to production.

Organizational changes were:

- Drivers and Vehicles Section was

transferred for administrative purposes from RLPS to the Regulations Systems Office (CSB);

- Computer equipment acquisition group which also maintained the inventory of terminals, printers, controllers, modems etc. was transferred from RLPS to the Planning and Technical Support Office, (CSB).

Human Resources Planning and Services Branch

Branch staff have been responsible for the provision of a wide range of services, including human resource planning, policy and program review, staffing, classification, employee benefits/records, staff relations, occupational health and safety and staff development.

Branch objectives were directed toward providing these human resource services to senior/line management and MTC employees in an effective, efficient and economical manner.

Increased emphasis was placed on corporate and branch strategic human resource planning, as well as expanded use of office technology. Products and services were re-examined in light of a planned reorganization which, when implemented, will provide a new focus for staff relations and regional liaison.

Staff Relations Office

Staff conducted a full range of labour relations services; interpreted and assisted with administration of existing policies, procedures, regulations, related acts and collective agreements, assisted with union negotiations; actively participated in the development of strategy and ministry policies and philosophies in the labour relations area.

Personnel have been involved in co-ordinating all aspects of the grievance procedure and contract administration. The arbitration process, becoming increasingly more complex and sophisticated, required a great deal of input/interface with professional lawyers in the labour relations field.

Employer/employee relations committees were more active than ever. The ministry level employee/employer relations committee was represented (on behalf of the employer) by an assistant deputy

minister, executive director and director of human resources planning and services. In addition, the local employee/employer relations committee for the Downsview complex recently held its first meeting.

Staff worked closely with the Civil Service Commission in developing training courses in staff relations for line managers. Delivery is anticipated to begin in the fall of 1985.

Two recent developments that will require significant involvement from the Staff Relations Office were the impact of Section 15 of the Canadian Charter of Rights and Freedoms and increased union interest in the area of occupational health and safety.

Occupational Health and Safety Office

Staff developed MTC policies to meet or exceed the demands of existing and new regulations under the Occupational Health and Safety Act, providing a safe, healthy environment for all employees. During the year, new directives were issued concerning protective clothing, welding and chain-saw safety.

Staff continued to provide courses such as first aid, back care and safety staff development courses. They also provided consultative advice and expertise to managers for evaluation of health hazards. A series of safety presentations were given to all summer students by staff.

Evaluation of potential health and safety hazards were monitored on a regular basis and medical surveillance programs will be implemented when deemed necessary in the future. All safety personnel were trained in industrial hygiene practices. As well, a province-wide welding survey was conducted to assess potential welding hazards.

Personnel also provided procedural co-ordination for the three-tier joint health and safety committees. Support included administrative assistance for the 3rd level — the ministerial committee, as well as participation in discussions with OPSEU regarding future structural and procedural changes.

Other accomplishments included the computerization of all Workers Compensation Board claims, making possible the distribution of more accurate information to all interested parties.

Human Resources Administration Office

Staffing Section

Staff initiated, developed and administered staffing policies and procedures with emphasis on equitable selection, placement and assignment of suitably qualified people with appropriate experience and skills required to meet the ministry's needs.

They also participated in the Winter Experience program. And the number of students allotted for Summer Experience '84 increased from the previous year. Both were funded by the Youth Secretariat. Seventeen engineers and eight multi-disciplinary graduates were recruited for the three-year management development program.

Ongoing services included staffing of permanent and temporary vacancies; information to the public about employment opportunities; and a consulting service to line managers and employees.

Classification and Pay Administration Section

Staff reviewed and classified over 750 positions as a result of head office

reorganization and similar changes in the regions in areas such as: Planning and Design, Safety and Regulation and the Remote Northern Transportation Office.

They continued to participate with the Civil Service Commission in major standard development projects, including design and technical engineering services and standards development projects for a number of class series, e.g. technician, photographic and northern affairs officers.

Classification staff worked with the CSC to carry out wage surveys to obtain data for salary negotiations while participating in the government salary negotiations process for bargaining unit categories.

Benefits and Records Administration

Section staff provided a service for the managers, employees and families of employees on pension matters and insured benefits. These included the administration and documentation of employees regarding classification and pay changes prior to processing through the corporate integrated payroll, personnel and employee benefit system. As part of improving the administrative support supplied by the branch, increased use was made of electronic technology.

Staff also co-ordinated, along with MGS employee Counselling Services Branch, a rehabilitation program to provide assistance to employees absent from work for an extended period due to illness or injury.

As a result of the introduction of Bill 54 "An Act to amend the Public Service Superannuation Act" workload increased significantly. There were approximately 600 requests to establish credit for past non-contributory service. Some other significant highlights of the Bill include: indexation of salary base for pension calculations of employees on LTIP; guarantee of pension benefit for contributors not employed prior to 1966, but whose pension credit date was established as prior to 1966 either through transfers or purchasing pension credits; employees on maternity and/or adoption leaves will only be required to pay single

contributions (seven per cent) to establish credit in the pension plan; and a special survivor benefit.

Human Resources Planning and Development Office

Human Resources Planning Section

Staff developed human resources planning process and policies, collected and maintained relevant and current MTC employee data and provided administrative support to line managers, subcommittees and the human resources committee.

A major initiative undertaken was the development, marketing and implementation of a proactive search and nomination process as an alternative staffing method for management positions.

The section provided consultative and administrative support to the program human resources committees, particularly in assisting in the development of human resources long range plans. As added support, the human resources inventory was expanded to include additional staff levels and refined to provide more specialized reports.

Staff also provided co-ordination and administrative support of the ongoing management familiarization and management development programs which were directed at the development of managers and potential managers to meet MTC's future needs.

Initiatives and Development Section

Staff initiated human resources policy development, assessed human resource policies, practices and systems; co-ordinated branch strategic planning; provided a focus for incoming suggestions concerning human resource innovations and improvements; and provided consultative and administrative support to the branch.

They took a lead role in developing several MTC policies, including temporary assignments and attendance improvement. A review was underway

of the current performance appraisal system and recommendations will be presented for consideration by the ministry's senior human resource committees.

Personnel worked on a range of potential suggestions and improvements concerning human resource policies and practices received from many sources, including the management Standards Implementation Project, Employee Incentive Program, Affirmative Action Program, Management Employee Group and senior human resource committees.

Initiatives and Development Section

Consultative and administrative support was provided to the branch, including co-ordination of the branch budget, monthly financial reporting, office automation training, speeches and briefing materials.

Staff Development and Training Section

Staff provided a broad range of training and development services throughout the ministry to promote organizational and staff growth and development and employee competence.

A wide variety of technical, management and development courses were conducted with increased participation in all areas. Technical training staff continued to provide services for both ministry and municipal employees. Consulting services and special course development and delivery expanded over the previous year.

Special projects included assistance and guidance in performance appraisal, attendance improvement and pre-retirement planning. Products and services were reviewed in light of branch and program long-range plans. Linkages with program areas were strengthened and work commenced on increased co-ordination, training needs analysis and modular course development.

Supply and Services Branch

Branch staff are responsible for ministry-wide policy and procedures for supply and services. This included a wide range of purchasing and other services for head office and the Ministry of Northern Affairs. On behalf of the government, branch personnel consolidated the purchase and disposal of all motor vehicles as well as the purchase of all petroleum products, tires and related items.

The following describes the activities of the branch offices and sections:

Tenders Section

Section staff maintained strict security over all head office contracts. Approximately 5,673 tenders were received and processed for 780 contracts while some 1,895 contractors/suppliers attended public tender openings.

In advertising, some 382 insertions were placed to the news media regarding tender calls and public notices.

Sales of contract documents, various construction-related manuals and MTC's contract bulletin produced a revenue of \$105,825.

Service Centres and Food Services Section

The 23 highway service centres leased by the ministry to various oil companies generated \$5.5 million in government income. This was up from \$4.7 million the previous fiscal year. The \$800,000 increase was a result of new leases with Esso and Gulf wherein rent was payable in advance which was over and above the percentage rental paid by Esso and Gulf at the conclusion of their original contracts. In effect, MTC received two years rental at the same time, one payment under the new lease and one under the old lease.

Section personnel maintained an extensive service centre inspection program which documented any problems and ensured the operation of each centre complied with the terms and conditions set out in the leases. Follow-up inspections ensured that earlier problems were satisfactorily resolved.

Esso's refurbished facility at Newcastle was officially opened July 10, 1984. Completely revamped, a Burger King restaurant was introduced. Esso reported sales of both food and fuel were up substantially over the previous year. This augured well

because gasoline sales for all service centres had declined steadily over the past decade. Restaurant sales had barely kept pace with inflation. These results should encourage the other oil companies to explore similar initiatives. Esso has now begun similar modifications at their Woodstock and Maple locations and plans to complete construction prior to the Victoria Day weekend (1985).

Gulf Canada received approval to introduce a McDonald's restaurant at each of their locations together with improvements to the gas bar and service station. The first such McDonald's restaurant at Barrie was opened February 10, 1985. The remainder were scheduled to be completed by late spring (1985). Staff expect the McDonald's venture will parallel the success achieved by Esso at Newcastle.

The new Esso and Gulf leases featured pricing clauses which stipulated the prices charged for fuel could not exceed the average of those charged at other Gulf and Esso service stations in a specifically defined local market; that the prices for food at the Burger King and McDonald's service centre restaurants could not exceed those at off-highway Burger King and McDonald's restaurants.

Although the other oil companies did not undertake major renovations of the sort started by Esso and Gulf, they have begun to take more interest in their highway service centres. For example, a meeting between Shell and MTC strengthened Shell's resolve to clear up a number of outstanding problems which had long been a concern of this office. As well, Texaco considered introducing part of their System 2000 service station program, with the ministry encouraging Texaco to implement their entire program and, perhaps, marry these changes with substantial improvements to the restaurants. Similar meetings were also held with representatives of Petro Canada.

Services for the physically disabled — such as parking, washrooms, telephones, water fountains and restaurants — were available at all service centres.

There were 10 service centres offering propane, up from eight the previous year. As well, the total number of service centres using the gasoline price signs increased from 12 to 16.

Two outdoor information facilities together with 18 travel information booths allowed motorists to get information on lodging and local points

of interest. The travel information booths, operated by the Ministry of Tourism and Recreation, were open from about mid-June to the Labour Day weekend. In addition, the ministry maintained picnic areas at 21 service centres.

The Ministry of Agriculture and Food established five Ontario fresh produce markets at five highway service centres. Advanced signing provided by MTC contributed to their success.

Purchasing and Supply Office

Staff were responsible for the purchase of all construction and maintenance materials and general ministry supplies, totalling about \$70 million.

Motorized vehicles and fuels purchasing personnel acted in the purchase of vehicles and fuels through standardization of specifications and consolidated purchasing for all Ontario Government ministries and agencies. Purchases totalled approximately \$59 million.

Stores personnel allowed MTC to take advantage of savings by bulk purchasing, also facilitating ministry operational functions by having materials available for use. They also reconditioned and stored Bailey bridge components for emergency use. Currently, there are 167 such installations in the province.

Section staff facilitated the disposal of all used MTC equipment, surplus material and all government motor vehicles, via public auction or tender. Sales totalled \$4.6 million. Review of district supply operations were conducted where appropriate.

The movable asset control system consisted of approximately 46,000 items valued at approximately \$110 million and was co-ordinated by section staff.

Information Management Office

Staff were responsible for providing assistance to MTC and MNA in the efficient and cost-effective management of recorded information.

Information analysis unit personnel focussed their activities on the development of policies, procedures, and administrative tools to better manage the ministry's recorded information resources. These included:

- the development of information classification and evaluation systems;
- the identification and retention

scheduling of MTC's recorded information;

- the preparation, production, and distribution of MTC's Data Directory, a comprehensive, indexed compendium of information sources within the ministry and from selected external organizations; and,
- the development of the retention schedule database, and launching of the automated schedule implementation notice system. The latter provided custodial offices with regular and descriptive notices of the stages in each record series life-cycle, and the appropriate means of storage or disposal.

Over 15,000,000 records were disposed of in accordance with approved retention schedules, resulting in a cost benefit of \$126,000 in reclaimed office space and filing equipment.

Similarly, over 150,000 records were transferred to the Ontario Government Archives, ensuring the preservation of vital information. The microrecording unit filmed in excess of 1,100,000 hardcopy records.

Central registry staff were responsible for the coding and indexing of correspondence received from ministry offices. During the year, approximately 28,000 pieces of correspondence were coded while over 11,000 records indexed. In addition, the unit received 400 engineering plans, 5,200 legal survey plans, 2,100 survey plans and related documents to be indexed into the title record books. Approximately 9,000 information searches were conducted by registry staff with 21,000 prints of highway survey data and construction records provided to MTC and external agencies.

Forms management unit staff provided design, analysis, procurement, and control services for both MTC and MNA forms and stationery items. During the year, a total of 164 new forms were registered, while 98 existing forms were declared obsolete, resulting in an estimated procurement savings of \$180,000. The number of MTC and MNA forms, as registered in the units' automated forms catalogue, now totals 2,500. Additional activities included the identification of forms potentially affected by proposed access and privacy protection legislation, the revision of 293 ministry forms, and the processing of orders for 147,500 calling cards.

Library and information centre staff provided library and reference resources for MTC and the transportation community, acquiring all publications and subscriptions to periodicals and newspapers. They provided reference services, computer searches, inter-library loans and issued two regular publications, Library News

and Journal Contents, to ensure all clients were informed of current acquisitions and holdings. The library increased its computerized information search capability while automation of its existing collection was initiated by joining UTLAS (University of Toronto Library Automation Systems).

Information production and support staff provided "camera-ready" production services, arranged the printing, distributed and/or sold the 200 MTC manuals and amendments centrally controlled through the information management office. In total, over 12,000 copies were distributed to ministry offices, other government institutions and the public. In addition, staff administered the printing, update and distribution of ministry directives with almost 79,600 copies distributed during the year.

Graphic services personnel were responsible for the preparation and update of engineering indices of technical data (strip plans) on all provincial highways. In addition, they produced "camera-ready" copy for ministry forms and prepared illustrations for ministry manuals and publications.

Map area staff provided for the availability, printing, inventory, sale and distribution of all MTC topographical maps. In excess of 335,000 were distributed or sold. Map No. 5, South Central Ontario, and Map No. 8, Eastern Ontario, of the Ontario Transportation Map Series were published during the year. The 1984 Ontario wall map was also published.

The Administrative Improvement Section staff provided a wide range of services relating to administration of this ministry's and MNA's convenience photocopiers, engineering copiers, word processing systems and office automation equipment. These included the feasibility study/needs analysis, equipment specifications, acquisition process, implementation assistance and support for both product lines, word processing and photocopiers.

During the year they conducted feasibility studies, word processing study/reviews and photocopier study/reviews for new system acquisitions and enhancements to existing systems. Personnel also performed ongoing consulting services relative to applications identification and development.

The major undertaking during the 1984-85 fiscal year was the comprehensive review of convenience photocopier requirements. On completion, equipment specifications and acquisition process for 188 photocopiers was affected. These products were installed during a four-week period throughout our eighteen district offices, five regional offices and head office.

Graphic Services Office

In support of all ministry programs, staff completed 23,578 reproduction requests, recovering in excess of \$885,000.

Reproduction services included offset printing, screen process printing, specialized black and white and colour photographic reproductions, white printing and high speed photocopying.

Related responsibilities include administration of MTC and MNA identification card programs and processing of printing requests completed in the private sector.

Accommodation Services

Staff were responsible for arranging office layout design requirements to meet organizational needs for program delivery; realigning various branches into office entitlement standards and developing sufficient space to accommodate complement from leased premises and releasing approximately 1,000 square meters of space in the Downsview area.

They also prepared and submitted the multi-year accommodation program to Management Board; liaised with MGS on the construction of a new addition to regional offices in Kingston and relocation of personnel from various leased premises to the new facility.

Instrument Repair and Test Shop

Personnel operated the only MTC facilities for repairing, calibrating and environmentally testing highly specialized and precise engineering instruments such as theodolites, other miscellaneous survey equipment, traffic counting recorders, solid state timers, detectors, transceivers, decoders, monitors, switch packs, isolators, relays and other miscellaneous electronic equipment pertaining to traffic signals control.

They were also responsible for the repairs and the acquiring of new transceivers (walkie-talkies) for regions, districts, and head office. A charge back system was implemented with recoveries of approximately \$152,000.

Special Services Operations

Personnel of postal operations were responsible for incoming and outgoing mail handling and courier mail service to all regional and district offices. They were also responsible for teletype/telex centre activities, as well as the operation of the mailmobile service throughout the Downsview complex.

Volumes of mail reached were: outgoing mail 1,587,263; incoming

mail 1,506,183; teletype/telex messages 191,468.

Material control personnel were responsible for handling moves and office realignments, delivery of supplies, furniture and equipment etc., processing orders and invoices, arranging for furniture and equipment repairs on a call-as-needed basis.

Volumes included: moving realignments; by contract mover, 55; by staff, 62.

Receiving/distribution included: shipments received, 2,658; pieces processed, 36,260; order processed, 658; service calls, 1,921; and invoices processed, 1,297.

Telecommunications Services Section

Projects completed included the replacement of the Ottawa and Kingston radio systems at a combined total cost of \$870,000. Coverage developed from these new systems was markedly superior to the previous systems and system reliability was expected to increase.

Design work was largely completed

for the replacement of the Thunder Bay radio system. The work conducted was based on a proposed joint agreement between MTC-MOH-OPP with the objective of limiting costs and avoiding unnecessary duplication of facilities. Negotiations continued.

Ministry of Environment limited sharing of MTC radio frequencies came into effect and to date a total of 120 of their mobile radio units have been approved for installation province-wide.

With regard to the sharing of MTC radio frequencies, permission was granted to the Ministry of Revenue for limited sharing for emergency or life-threatening situations. The number of participating vehicles was restricted to five.

Extensive testing of facsimile as a proposed replacement for the present private wire teletype system was conducted. Specifications for the procurement of a comprehensive high-speed, digital facsimile system was prepared. Tests promised significant cost savings over the present teletype system.

Further experimental work was conducted with the use of CN-CP

electronic office services as an economic method of handling written correspondence. The initial results were promising.

A total upgrading of the telephone switch serving the Kingston regional office was completed. The old switch was replaced by a digital switch which provided numerous features unavailable on the old one. The new installation will be compatible with a universal numbering plan to be introduced by MGS.

A digital switch was installed in New Liskeard.

Studies continued on the proposed replacement of the Downsview telephone switch. Latest estimate of the project completion was from nine months to a year.

Road information services were improved in Southwestern Ontario by the installation of a number of digital automated answering devices. Areas supplied with these digital answering devices included Kitchener, Barrie and St. Catharines.

Audio teleconferencing system use showed an increase over the last year with an average of 15 teleconferences per month.

Financial Planning and Administration Branch

Budgetary Planning and Control Branch

Personnel were responsible for acting as a liaison with Management Board of Cabinet, Ministry of Treasury and Economics, other central agencies and planning, evaluating, developing, controlling and analyzing MTC's budget which consists of three sections.

Budget staff were primarily involved in acquisition of resources to produce MTC's annual expenditure budget. They co-ordinated preparation of the expenditure and revenue estimates submission, represented the ministry throughout the resources allocation process and developed MTC's request for personnel and financial requirements in the ensuing fiscal year.

Analysis staff monitored expenditures and revenues, identified deviations and developed financial options for resolution. They also provided support to program managers in the in-year management of financial resources.

Evaluation personnel co-ordinated integration of the managing by results concept with MTC's existing management processes.

Financial Systems Office

Personnel provided expertise in both computer and manual financial systems processes to aid managers in the effective management of financial resources. They were responsible for the introduction and upgrading of financial systems while continuing to maintain a high degree of efficiency within current systems.

This provided financial analysis and evaluation for in-year monitoring and control, performance assessment, financial information and reporting for managers.

Qualification Control Office

Staff maintained and used procedures to ascertain contractors abilities to meet ministry pre-qualification standards, initiating, developing and implementing improvements in the pre-qualification process. There are now in excess of 360 contractors qualified with MTC.

Chief Accountant's Office

Staff were responsible for all functions usually associated with a large accounting organization: payroll, accounts payable and receivable, maintenance of financial records, preparation of financial statements and liaison with the Ministry of Treasury and Economics.

There were three key areas:

Expenditure Office

Staff developed operational policies and procedures related to accounts payable, expense accounts, payroll and subsidies. It maintained and utilized procedures for the issuing and distributing of payroll cheques, processing of accounts payable data for the issuing of treasury cheques and provision of expenditure information.

Personnel monitored and co-ordinated policies, procedures and budgets in relation to employee relocation entitlements.

Personnel also monitored expense account data to ensure compliance with regulations and the provision of statistical information.

Revenue Control Office

Staff developed operational policies and procedures related to revenue accounting and cost sharing.

They processed and recorded accounts receivable data and reconciled the concentrator account for all local payments and advances with treasury.

They deposited all revenue received to the consolidated revenue fund and all refund of expenditure to treasury.

Personnel also reconciled all monies deposited in the direct deposit system by drivers and vehicles agents and established accounts receivable for shareable agreements made by the ministry, compiled, prepared and distributed all statistical financial documents and produced and co-ordinated the daily operations of all financial and statistical reports.

Accounting and Administration (Head Office)

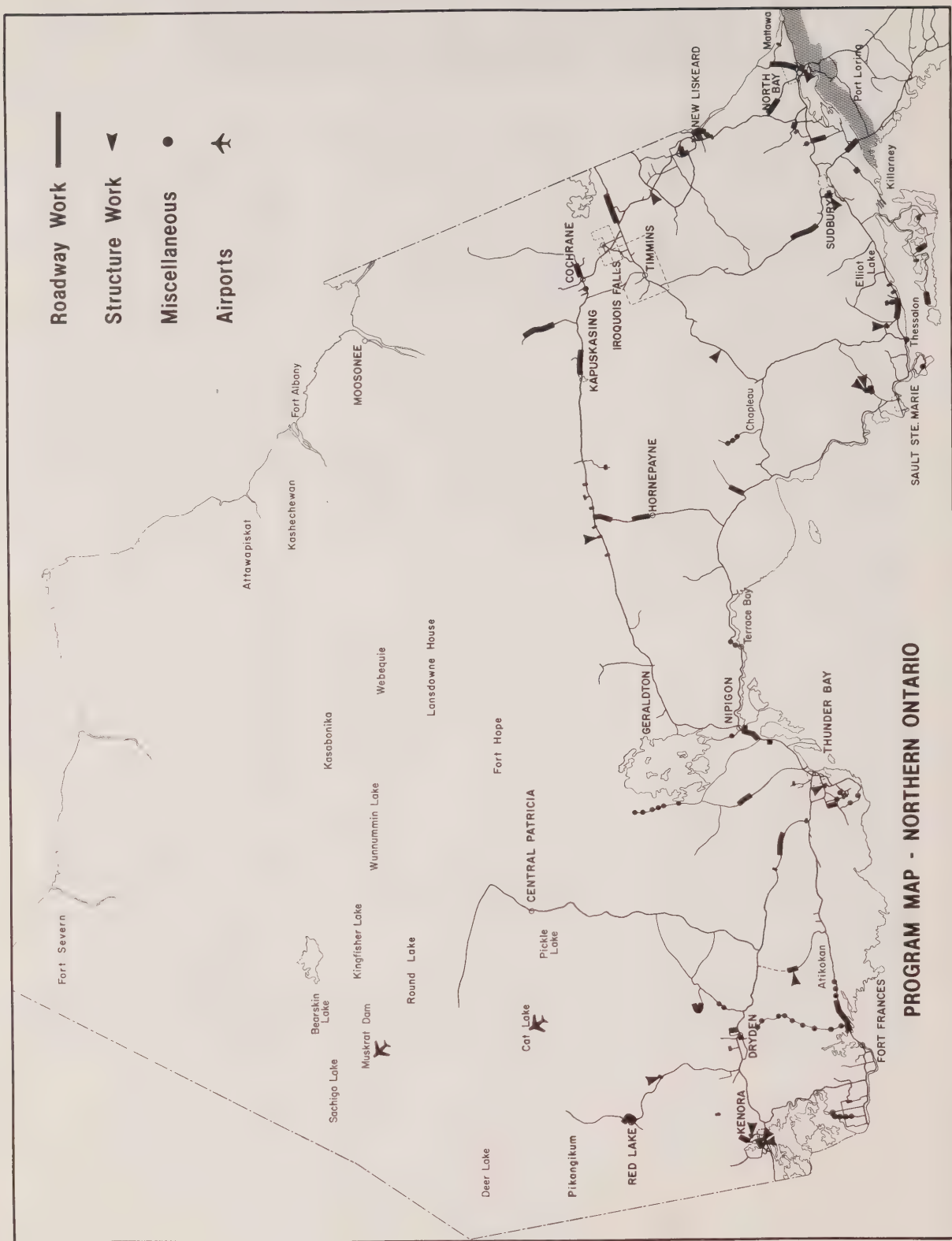
Staff provided a regional accounting and administration service for head office ministry staff and the Ministry of Northern Affairs in four distinct sections.

Pay and personnel staff were responsible for the maintenance of attendance records and control and distribution of pay cheques.

Budget staff were responsible for the recording and reporting of cost centre expenditures and the recovery of expenditure in accordance with predetermined agreements on behalf of the head office cost centre managers.

Accounts payable personnel were responsible for the orderly payment of invoices, employee expense accounts, inter-ministry accounts and payment to consultants in accordance with agreements. They were also responsible for the head office accountable advance account.

Administration staff provide head office management with a variety of services such as accounting re: auction sales, participation in miscellaneous supply tenders, mail messenger service, etc.



PROGRAM MAP - NORTHERN ONTARIO

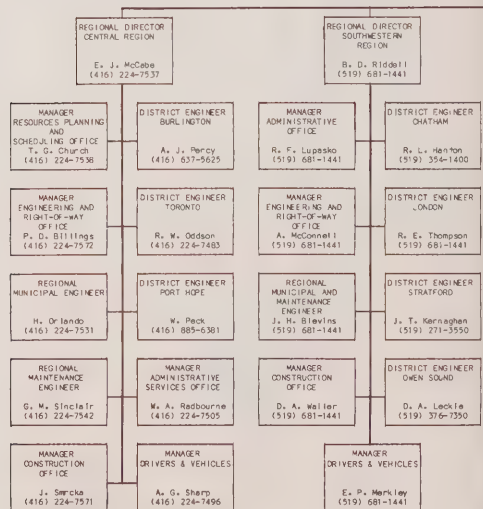
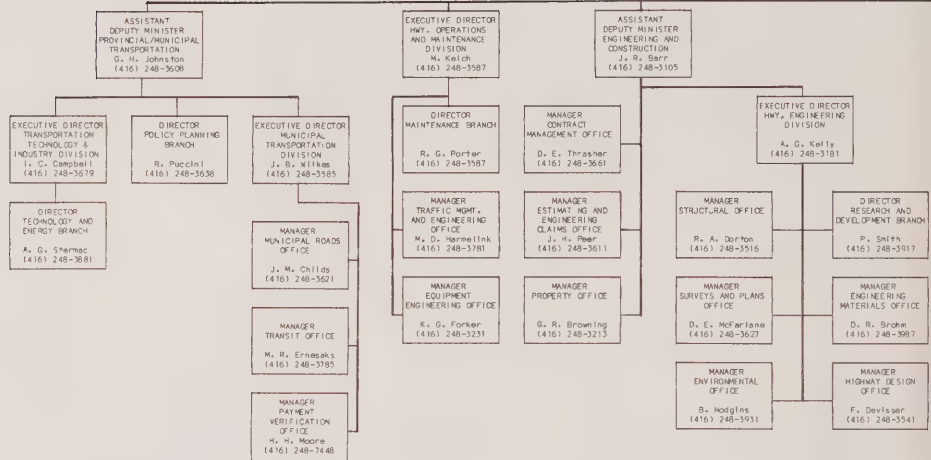


PROGRAM MAP - SOUTHERN ONTARIO

ONTARIO TELEPHONE
SERVICE COMMISSION

 CHAIRMAN,
W. Blaiski, Q.C.
(416) 248-3831

EXECUTIVE SECRETARY M.E.G. L. J. Kitching (416) 248-7109	MANAGER AFFIRMATIVE ACTION PROGRAM K. D'Souza (416) 248-7125	DIRECTOR MANAGEMENT IMPROVEMENT BRANCH L. Hoffman (416) 248-7103
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Minister
Honorable
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DEPUTY MINISTER
Harold Gifford
(416) 248-3604

TORONTO AREA
TRANSIT OPERATING
AUTHORITY
CHAIRMAN,
L. R. Parsons
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ONTARIO HIGHWAY
TRANSPORT BOARD
CHAIRMAN,
W. R. DeGeer
Elected April 1/85
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PUBLIC AND SAFETY
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MANAGER
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PIPELINE OFFICE
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EXECUTIVE DIRECTOR
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DIRECTOR
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CO-ORDINATOR
OF RESOURCES
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CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
7	Fail to register a vehicle	28,242	53,605
9(1)	False statement	101	47
9(2)	Fail to notify new address	2,376	1,610
10	Fail to have number plates	3,593	949
12	Violations as to number plates	2,343	4,467
13	Improper use of number plates	929	745
18(1)	No driver's licence or improper class	17,590	21,272
18(3)	Driving in breach of condition	2,164	2,712
19	Fail to produce operator's licence	24,555	21,524
21(1) a,b,c,d,	Driver licence violation	581	452
22	Driver suspended in Ontario — licence out-of-province	14	19
23	Operation of motor vehicle by person under 16	12	40
24	Driving motor assisted bicycle under 16	0	0
30(2)	Unlawful possession of permit	5	4
30(3)	Unlawful possession of licence	136	105
35	Driving while licence is suspended H.T.A.	12,761	12,544
41	No garage licence	72	31
42	Record of wrecked vehicle violation	12	7
44	Improper light violations	12,666	10,621
46	Defective brakes	1,822	1,664
48	Faulty equipment (mirror, windshield, etc.)	450	354
52(1)	Defective — improper tires	1,204	1,418
52(2)	Improper attachment on wheels	10	0
55(1) a & b	Driver view obstructed	183	156
55(2)	Colour-coating obstructing view	99	68
55(3)	Obscured interior colour-coated windows	336	259
56(1) a & b	Windows obstructed	1,215	1,317
57	Excessive noise/smoke/fumes	12,814	12,188
58	No slow moving vehicle signs	74	72
61(2)	Radar warning device prohibited	630	1,017
62	Fail to have proper trailer attachments	1,104	1,014
65(2)	Unsafe vehicle	2	2
65(3)	Failing to submit to vehicle inspection	1,239	1,266
67	Driver unsafe vehicle	2,454	2,302
68(1)	Operate vehicle — fail to display device	698	634
69	Affix vehicle inspection sticker not MTC issue	4	2
71	Certificate of mechanical fitness violation	5	2
87	No name of owner on commercial vehicle	481	423
88	Driver/ride motorcycle no safety helmet	1,340	2,047
90(2)	Remove/modify/inoperative seat belt assembly	1,298	996
90(3)	Failure/improper use seat belt assembly — driver	85,646	59,478
90(4)	Passenger — failure to ensure seat belt use	6,540	4,134
90(6)	Driver — failure to ensure passenger seat belt use	2,447	3,839
92(1)(2)(5)(6)(9)(10)	Excessive vehicle width/length/height	1,268	1,371
93(7)	Special permit violation	403	266
93(1)	Overload in excess of permit	5	7
93(2)	Fail to produce commercial ownership permit	8	8
93(4)	Spring regulations — overload	0	1
94(1 & 2)	Overhanging load/improper loading	2,049	2,363
98(1) (1b)	Overweight — tires	6	6
99(1)a	Overweight — single axle (single tire)	42	11
99(1)b	Overweight — single axle (dual tires)	1,194	990
99(1)c	Overweight — dual axle	5,337	4,771
99(1)d	Overweight — triple axle	164	128
99(2)	Overweight — dual axle (single tire)	4	6
99(3)	Overweight — triple axle (single tire)	1	0
99(4)	Overweight — single front axle (no verification)	35	41
99(6)	Overweight — single front axle (exceed rating)	14	15

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
100(a)	Overweight — two axle group	68	28
100(b)	Overweight — three axle group	102	86
100(c)	Overweight — four axle group	43	23
101(1)(abc)	Gross vehicle overweight	1,622	1,425
101(2)(3)	Fail to produce/violate authority	16	47
102(3)	Overweight during freeze-up	318	44
103	Overweight on axle Class B highway	14	3
104(1)	Overweight in excess of permit	3,056	2,081
104(2)(5)	Fail to carry/produce permit	229	19
104(7)(8)	Overweight — March/April	3	0
109	Speeding 50 km/h or more over the limit	3,498	3,248
109	Speeding more than 29 less than 50 km/h	81,276	81,338
109	Speeding more than 15 less than 30 km/h	250,193	238,133
109	Speeding under 16 km/h	419,590	396,614
111	Careless driving	17,003	17,667
113	Unnecessary slow driving	146	131
114	Fail to obey signal of police officer	226	183
114(3)	Drive vehicle on closed road	181	147
115	Fail to yield right of way	178	163
116	Fail to stop at through highway	55,537	46,503
118	Fail to obey yield sign	584	558
119	Fail to yield — from private road	6,580	7,211
120	Pedestrian crossover violation by driver	4,195	2,648
121(1)	Improper right turn	9	65
121(2)	Improper right turn at intersection	3,031	2,398
121(3)	Improper right turn — multi-lane	348	269
121(4)	Improper left turn — across path of approaching vehicle	5,589	6,065
121(5)	Improper left turn at intersection	5,960	5,616
121(6)	Improper left turn — multi-lane highway	900	883
122(1)	Fail to signal for turn	14,127	14,641
122(2)	Fail to signal moving from parked position	3,905	4,093
122(4a)(4b)	Improper manual signal	5	5
122(5)	Improper directional signal	35	30
122(6)	Improper use of signaling device	71	64
122(7)(7a)(7b)	Fail to signal	114	111
123	Prohibited U-turns	159	177
124(5)	Disobey red signal light	48,122	42,985
124(7)	Disobey amber light	9,516	5,777
124(8)(9)(10)(11)	Flashing red-amber-green arrow	2,483	3,473
124(12)	Fail to give right-of-way to pedestrian	922	518
124(13)	Prohibited turn	26,679	16,495
124(25)	Disobey traffic signal	1	12
125(3)	Disobey portable lane control signal — red light	61	54
125(4)	Disobey portable lane control signal — amber light	34	41
126	Drive right side of multi-lane highway	173	160
127(1)(2)	Fail to share the road	1,915	2,089
127(3)	Fail to move to right	138	141
127(4)	Vehicle or horsemen overtaking others	443	469
127(5)	Horsemen or vehicles overtaking bicycles or tricycles	51	50
127(6)	Improper passing	16	21
127(7)(a)(b)	Improper passing	1,125	1,090
128	Driving left of centre of highway	1,292	1,347
129(1)	Passing to right of vehicle	89	169
129(2)	Unsafe passing to the right	3,227	2,778
130(1)	Fail to obey signs posted on paved shoulder	551	591
132	Wrong way on a one-way street	5,619	4,995
133(a)	Unsafe lane change	6,134	5,741
133(b)	Drive in centre lane of three lane highway	169	118
133(c)	Fail to drive in slow moving traffic lane	4,695	3,544
135(a)(b)	Improper driving on divided highway	648	585
135(a)	Backing on highway	182	18

CONVICTIONS REGISTERED UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
136(1)	Following too closely	16,021	16,329
136(2)	Following too closely in commercial vehicle	315	313
137(1)	Fail to yield to fire department vehicle, etc.	280	286
137(2)	Following a fire department vehicle	15	18
140	Crowding driver	421	320
141	Fail to stop for crossing (signal)	183	185
142	Drive through under or around railway barrier	182	182
143	Improper opening of vehicle door	233	307
144(1)	Improper approach or passing a stopped streetcar	168	139
144(2)	Pass streetcar on left side	38	28
145	Improper driving when approaching animals	25	3
146	Fail to use passing beam	987	1,001
147	Improper parking on highway	546	561
147(8)	No warning lights on commercial vehicle	11	13
147(9)	No flares	117	19
147(10)	Vehicle interfering with traffic	486	522
148	Racing	66	62
150(b)	Failure to stop for school bus or public vehicle at railway crossing	18	25
151(5)	Fail to stop for school bus — meeting	1,702	940
151(6)	Fail to stop for school bus — overtaking	0	149
151(7a)(7b)(7c)	School bus — fail to actuate signals	21	32
151(9)	Unlawful use of red signal lights on school bus	4	6
151(11)	School bus — failure to cover signals and signs	14	24
152(3)	Fail to obey school crossing stop sign	66	81
156	Littering highway	895	649
158(2)	Disobey legal sign	4,567	3,284
159	Fail to obey a direction sign	36	13
173	Fail to report an accident	4,117	4,282
174	Fail to remain at the scene of an accident	2,576	2,729
175	Fail to report damage to highway property	657	58
189(a)	Fail to stop for police	808	861
	Others	1,786	6,776
TOTAL		1,271,334	1,201,565

REGULATIONS UNDER THE HIGHWAY TRAFFIC ACT

SECTION	OFFENCES	1983	1984
484	School bus violation	19	8
469(14)(15)(16)(17)	Number plate violation	395	62
462	Motorcycle violation	195	593
462(13)	Classified licence violation	34	32
462(19)	Fail to notify name/address change	1,958	1,421
462(20)	Fail to sign licence	683	897
469(21)	Only single beam headlight	11	3
477(4)	Improper parking	109	231
494(2)	Prohibited use of studded tire	52	85
	Others	1,752	2,879
TOTAL		5,208	6,211

CONVICTIONS REGISTERED UNDER THE CRIMINAL CODE (CANADA)

SECTION	OFFENCES	1983	1984
203	Criminal negligence causing death	15	19
204	Criminal negligence causing bodily harm	10	13
233(1)	Criminal negligence	145	163
233(2)	Fail to remain	1,466	1,367
233(4)	Dangerous driving	1,326	1,191
234	Drive ability impaired	19,321	19,497
234.1	Roadside	668	743
235(2)	Fail to take breathalyzer	3,551	3,229
236	Over .08 alcohol	21,464	22,772
TOTAL		47,966	48,994

SUMMARY OF CONVICTIONS

	1983	1984
Criminal Code	47,966	48,994
Highway Traffic Act	1,271,334	1,201,565
Regulation H.T.A.	5,208	6,211
Municipal Bylaws	31,210	31,927
Motor Vehicle Accident Claims Act	0	2
Compulsory Automobile Insurance Act	20,482	27,567
Public Commercial Vehicles Act	600	795
Public Vehicle Act	0	113
Motor Vehicle Transport Act	624	1,040
TOTAL	1,377,424	1,318,214

CONVICTIONS REGISTERED UNDER THE MOTORIZED SNOW VEHICLES ACT

SECTION	OFFENCES	1983	1984
2(1)	Driver or permit to drive unregistered vehicle	220	224
2(2)	Fail to register vehicle	0	0
2(3)	Fail to provide evidence of issue of permit (no plate)	3	1
2(7)	Fail to display registration number	129	106
2(8)	Fail to display evidence of permit	376	298
3(1)	Make false statement	0	1
3(2)	Fail to notify change of address	0	0
3(3)	Fail to notify change of ownership	14	14
4	Plate — registration number obstructed	3	0
4(2)(a)(b)	Use defaced or altered plates	0	0
4(2)(c)	Improper plates	0	0
5	Drive on prohibited highway	65	58
6(2)	Drive in area not designated	0	0
7	Improper crossing of highway	5	6
8(1)(2)	No operators licence driving along/across highway	102	118
11(1)	Operate/permit operation uninsured vehicle	197	173
11(2)	No insurance	13	0
11(3)	Fail to produce evidence of insurance	38	35
11(4)	Produce false evidence of insurance	2	2
12(1)	Fail to report collision	13	18
12(2)	Police officer fail to forward report of accident	0	2
13(1)	Speeding	29	24
14	Careless driving	39	41
15(1)	Fail to produce licence	65	36
16	Remove device	3	0
16(1)	Improper muffler	1	2
17	Towing on serviced roadway prohibited	8	1
18	No helmet	215	215
25(3)	Disobey signs on highway or public trail	11	9
	Others	8	18
	TOTAL	1,559	1,411

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

SECTION	OFFENCES	1983	1984
2	Disobey police officer	5	4
3	Fail to yield to vehicle on right	1	0
4	Disobey sign	5	10
5(1)(b)	Fail to yield — from adjoining property	1	3
5(2)	Improper crossing of roadway	0	1
6(3)	Improper left turn	1	0
7(1)	Fail to signal	0	1
7(2)	Fail to signal from stop position	0	1
7(3)	Improper signal	0	0
7(4)	Fail to signal stop	0	0
8(a)	U-turn no clear view	0	0
9	Disobey traffic signal light	0	0

REGULATIONS (MOTORIZED SNOW VEHICLES ACT)

10(1)	Fail to share roadway	1	6
10(2)(b)	Passing when roadway not clear	0	0
11	Drive left of centre	1	0
12	Pass on right — not in safety	1	1
13	Following too closely	1	3
14(1)	Fail to stop at railway crossing	0	0
14(2)	Cross railway improperly	0	0
15(1)(a)	Park on roadway	0	1
16	Speeding	0	2
17	Improper or no lights	17	17
19(a)	Drive on King's Highway (prohibited)	0	0
	Others	24	2
	TOTAL	58	52

CRIMINAL CODE OF CANADA (MOTORIZED SNOW VEHICLES)

SECTION	OFFENCES	1983	1984
233(2)	Fail to remain	0	0
233(4)	Dangerous driving	0	0
234	Impaired driving	5	6
235(2)	Fail to take breathalyzer	0	0
236	Over .08 alcohol	9	10
	TOTAL	14	16

MUNICIPAL BYLAWS (MOTORIZED SNOW VEHICLES)**SUMMARY OF CONVICTIONS (MOTORIZED SNOW VEHICLES)**

Motorized Snow Vehicles Act	1,559	1,411
Criminal Code of Canada	14	16
Regulations	58	52
Bylaws	0	10
TOTAL	1,631	1,505

SUSPENSIONS

COURT ORDERED SUSPENSIONS H.T.A.	1983	1984
Careless driving	331	275
Speeding over 30 mph (50 kmh)	207	149
Racing	6	8
Fail to remain	91	115
Others	455	415
TOTAL	1,090	962

MANDATORY SUSPENSIONS H.T.A.

Driver while licence is suspended (Section 35)	12,602	12,415
Others	0	0
TOTAL	12,602	12,415

DEMERIT POINT SYSTEM SUSPENSIONS

6 & 15 demerit point accumulation	19,565	19,748
Fail to attend interview	916	1,072
As a result of interview	1,551	1,009
TOTAL	22,032	21,829

DISCRETIONARY SUSPENSIONS (H.T.A. — SECTION 30)

Medical or physical condition	1,035	1,183
Fail to file medical report	2,360	2,521
TOTAL	3,395	3,704

SUSPENSIONS

SUSPENSION FOR:

Motor Vehicle Accident Claims	4,316	3,569
Failure to pay judgment	1,384	1,320
Default in payment of traffic fine	63,657	55,649
TOTAL	69,357	60,538

MANDATORY SUSPENSION H.T.A. FOR CRIMINAL CODE OFFENCES

Criminal negligence	154	182
Dangerous driving	1,198	1,107
Impaired	18,816	18,930
Failure to provide breath sample	3,408	3,085
Blood/alcohol .08	20,832	21,976
Fail to remain at scene	1,385	1,297
Fail to provide (RDSI)	627	691
TOTAL	46,420	47,278
TOTAL OF ALL SUSPENSIONS	154,896	146,726

DEMERIT POINT SYSTEM	1983	1984
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DRIVER IMPROVEMENT ACTIONS

Advisory letters issued (Probationary)	44,238	41,408
(Non Probationary)	125,390	108,205
Interviews conducted	29,635	28,104

SUSPENSIONS

Drivers who reached suspension level through point accumulation (15 points)	5,917	4,205
Drivers who reached suspension level through point accumulation (6 points)	13,078	15,003
Drivers who reached suspension level through point accumulation (Second 15 point accumulation)	570	540
Drivers suspended for failure to attend interview	916	1,072
Drivers suspended as a result of unsatisfactory interview	1,551	1,006
Total suspensions under point system	22,032	21,826

DRIVER MEDICAL REVIEW

Total Cases Reviewed	85,813	104,238
Satisfactory	84,175	102,558
Unsatisfactory reports as to class	479	573
Totally unsatisfactory	1,159	1,107
New Medical Waiver Program (Effective March 1981)		
Waivers granted	221	235
Waivers denied	16	15

DRIVER OPTOMETRICAL REVIEW HIGHWAY TRAFFIC ACT

Total Cases Reviewed	8,463	8,531
Satisfactory vision reports filed	4,550	6,022
Drivers to wear prescribed lenses while driving —		
no previous restriction	3,538	2,224
Unsatisfactory vision reports	385	285

Driver Improvement Statistics – 1984 Summary Sheet

	1982	1983	1984
NUMBER OF LICENSED DRIVERS IN ONTARIO	5,247,177	5,380,259	5,513,911
CONVICTIONS RECORDED IN RESPECT TO THE OPERATION OF:			
Motor Vehicles	1,416,084	1,377,424	1,318,214
Motorized Snow Vehicles	2,165	1,631	1,505
TOTAL	1,418,249	1,379,055	1,319,719
TOTAL DRIVER LICENCE SUSPENSIONS APPLIED	155,096	154,896	146,726
MEDICAL AND OPTOMETRICAL REVIEWS CONDUCTED	92,606	94,276	112,769

Trends in Motor Vehicle Accidents Death and Injury Rates Over the Period 1975-1984

Between 1975 and the end of 1984, Ontario's population and the number of licensed drivers, motor vehicle registrations and motor vehicle accidents (with the exception of the years 1976, 1978, 1980, 1982 and 1983) were all on the rise. During the past ten years, traffic deaths reached a high of 1,800 in 1975 and declined to a low of 1,132 in 1984 which is the lowest annual fatality total since the year 1958 when 1,112 persons were killed.

In the past year, the number of deaths decreased 6.0% from 1,204 deaths in 1983 to 1,132 deaths in 1984. The estimated population grew from 8.82 million to 9.02 million. The death rate per 100,000 population

decreased to 12.5 from 13.7 last year. The death rate over the past ten years ranges from 21.9 to 12.5. The 1984 death rate of 12.5 is the lowest since the year 1944 at which time the population was 3.96 million and the death rate was 12.6 per 100,000 population.

There was an increase in the number of persons injured, from 91,706 in 1983 to 97,230 this year. The 1984 injury rate per 100,000 population increased to 1077.5 from 1040.2 in 1983.

Last year, the number of motor vehicle accidents reported totalled 194,782 an increase of 7.0% against the 1983 total of 181,999. There were decreases of 3.0% in fatal accidents

and 6.0% in persons killed. The personal injury accidents and persons injured increased 5.4% and 6.0% respectively.

The motor vehicle accident rate per one million kilometres travelled this year increased to 2.9 from 2.8 last year and the fatal accident rate per 100 million kilometres travelled decreased from 1.6 to 1.5. The death rate per 100 million kilometres travelled decreased from 1.84 in 1983 to 1.70 this year. The 1984 death rate of 1.70 is the lowest since 1955.

The number of kilometres driven in 1984 was estimated at 66,722,565,000 an increase of 2.1% from the 1983 figure of 65,358,842,000.



MINISTRY EXPENDITURE BY HIGHWAY

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
2	Lancaster-Windsor	1,500,432	4,801,896
3	Fort Erie—Windsor	3,241,867	2,642,001
4	Port Stanley—Hwy. 24	1,664,002	1,582,539
5	Toronto—Paris	82,296	864,555
6	Hwy. 24—Baldwin Twp.—Hwy. 17	2,790,027	3,476,570
7	Hwy. 417 & Hwy. 17 IC—40 IC (Sarnia)	14,346,563	5,958,941
7A	Hwy. 7 Scotts Corner—Hwy. 7/12 (Manchester)	297,948	349,084
7B	Peterborough—Fowler's Corners	784	102,161
8	Grimsby—Goderich	1,401,198	894,983
9	Hwy. 11—Hwy. 21	2,490,834	1,286,759
10	Mississauga—Owen Sound	2,143,067	1,680,815
11	Toronto—Rainy River	20,455,057	11,463,001
11B	(North Bay By-Pass)	1,644,550	97,718
12	Whitby—Hwy. 93	2,383,601	1,094,771
14	Hwy. 62—Marmora	23,225	410,740
15	Barriefield—Old Hwy. 17	39,897	1,048,306
16	Johnstown—Ottawa	3,071,824	561,371
17	Hwy. 417—Manitoba Boundary	14,067,073	12,199,219
17B	At North Bay	—	6,647
18	Leamington—Windsor	827,055	361,543
19	Port Burwell—Tralee	29,613	768,573
20	Niagara Falls—Hamilton	309,399	514,905
21	Hwy. 3 (Morpeth)—Owen Sound	504,853	1,624,076
22	London—Hwy. 7 & 79	—	305,833
23	Hwy. 7—Hwy. 9 Teviotdale	25,429	602,825
24	Hwy. 59—Collingwood	6,701	1,581,577
24A	Paris—Waterloo Cty. Bdy.	—	72,054
25	Oakville—Hwy. 89	101,247	798,346
26	Barrie—Owen Sound	9,378	731,910
27	Hwy. 401-Hwy. 93	1,477,105	955,222
28	Port Hope—Hwy. 41	181,044	1,108,081
29	Brockville—Smiths Falls	53,439	243,878
30	Brighton—Havelock	1,517,867	328,240
31	Morrisburg—Ottawa	2,679	496,184
32	Gananoque—Hwy. 15	—	110,583
33	Kingston—Stirling	196,605	714,817
34	Hwy. 2 (Lancaster)—Hawkesbury	4,255	512,828
35	Hwy. 401 (Newcastle)—Hwy. 60	5,429,131	1,189,355
35A	Fenelon Falls—Hwy. 35	182	21,004
36	Lindsay—Burleigh Falls	17,946	429,926
37	Belleville—Hwy. 7	943,442	234,331
38	Hwy. 2—Hwy. 7	—	392,187
40	Blenheim—Sarnia	60,675	540,175
41	Napanee—Pembroke	146,826	1,145,617
42	Hwy. 29—Westport	—	288,772
43	Alexandria—Perth	7,325	1,028,324
44	Hwy. 17—Hwy. 15 (Almonte)	1,546	83,543
45	Cobourg—Norwood	4,438	399,754
46	Hwy. 7—Hwy. 48	1,450	168,032
47	Whitchurch/Stouffville—Hwys. 7/12	47,432	378,821
48	Toronto—Hwy. 35	979,099	1,166,898
49	Picton-Hwy. 401	—	127,264
50	Toronto—Hwy. 89	501,266	460,747
51	Rondeau Prov. Park—Jct. Hwy. 3	—	35,916
52	Jct. Hwy. 2/53—Wellington Bdry.	234,409	195,836
53	Elfrida—Eastwood	17,216	575,348
54	Cayuga—Cainsville	26,327	458,205
55	Niagara-on-the-Lk.—Mary St.—Niagara Rd. 81 (Homer)	5,022,170	192,399
56	Jct. Hwy. 3—Elfrida (Hwy. 3 & 28)	—	254,718

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
58	Port Colborne—St. Catharines	558,132	271,966
58A	Port Colborne (Hwy. 58)—Hwy. 140	364	87,893
59	Long Point—Shakespeare (Hwy. 7 & 8)	1,100,341	728,057
60	Hwy. 17 (Renfrew)—Huntsville	142,055	1,393,441
61	International Bdry.—Thunder Bay	85,035	256,040
62	Bloomfield—Pembroke	479,123	1,374,337
63	North Bay—Quebec Border	515,741	372,376
64	Hwy. 69—Hwy. 11	63,329	867,601
65	Quebec Border—Hwy. 66	18,424	558,334
66	Quebec Border—Sec. Hwy. 566	39,200	437,906
67	Iroquois Falls—Timmins	4,869	202,958
69	Hwy. 12—(Sudbury By-pass)	3,099,399	1,851,276
69B	Parry Sound By-pass	2,606	6,353
70	Hwy. 6/21—Hepworth	9,580	88,900
71	Fort Frances—Hwy. 17	1,443	583,958
72	Hwy. 17 (Dinorwic)—Sioux Lookout	10,252	265,276
73	Port Bruce—Middlesex Rds. 29 & 48	—	260,377
74	Hwy. 3 (New Sarum By-pass)—Nilestown	—	149,563
76	Hwy. 3 (Eagle)—Hwy. 2	—	112,922
77	Leamington—Hwy. 401	14,652	123,259
78	Hwy. 21 (Dresden)—Wallaceburg	—	76,923
79	Hwy. 2—Hwy. 21	2,381	293,239
80	Hwy. 2—Courtright	—	373,887
81	Hwy. 2—Grand Bend	5,417	417,653
83	Hwy. 23 (Russeldale)—Hwy. 21	—	251,069
84	Hensall—St. Joseph	1,113	105,476
86	Kitchener—Amberly	192,729	742,861
87	Harriston—Hwy. 86 (Bluevale)	—	205,128
88	Bradford—Hwy. 27 (Bond Head)	22,831	62,848
89	Hwy. 11—Hwy. 23	115,897	820,510
90	Barrie—Angus	104,926	140,134
91	Stayner—Duntroon	—	41,729
92	Elmvale—Wasaga Beach	—	72,241
93	Hwy. 11—Penetanguishene	7,833	431,480
94	Callander By-pass—Hwy. 17	1,450,670	61,801
95	Alexandria Point—Wolfe Island	—	62,883
96	Port Metcalf—W. end of Wolfe Is.	28,676	235,803
97	Hwy. 6 (Freelton)—Hickson	72,817	40,703
99	Ancaster—Hwys. 24 & 5	—	111,708
100	Jct. Hwy. 401 to Thames R.Br.	36,946	26,495
101	Quebec Border—Hwy. 17	2,594,193	2,129,232
102	Thunder Bay—Sistonens Corners	—	180,481
105	Hwy. 17—Sec. Hwy. 618	2,642,241	671,093
106	Hwy. 28 (Dale)—Hwy. 2 (Welcome)	242	33,235
108	Hwy. 17—Sec. Hwy. 639 (Quirke Lake)	38,424	229,500
112	Hwy. 11—Hwy. 66 (Kirkland Lake)	27,963	85,446
115	Newcastle—Peterborough	318,995	527,101
117	Jct. Hwy. 11—Jct. 35	5,163	239,910
118	Hwy. 121—Hwy. 169	12,820	609,563
121	Hwy. 28—Hwy. 35 (Powles Cors.)	259,812	809,905
124	Hwy. 69—Hwy. 11	6,171	421,285
125	Hwy. 105—Cochenour Dock	26,135	51,077
126	Middlesex Rd. 37—Middlesex Rd. 23	—	78,126
127	Maynooth—Hwy. 60	—	191,779
129	Thessalon—Chapleau	13,565	1,085,423
130	Hwy. 11/17—Hwy. 61	1,013,714	57,794
132	Renfrew—Hwy. 41	9,859	141,967
133	Hwy. 33 (Milhaven)—Hwy. 401	10,339	57,584
134	Jct. Hwy. 7—Jct. Hwy. 28	871	104,565
135	Middlesex Road 37—Hwy. 2/4	60,933	45,401
136	Hwy. 24—Orangeville	—	209,385
137	Hwy. 401—Canada US Border	—	37,606

KING'S HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
138	Hwy. 417—Cornwall	116	231,637
140	Hwy. 3 (Port Colborne)—Welland	9,824	190,098
141	Hwy. 69—Jct. Hwy. 11	16,114	275,273
144	Sudbury—Hwy. 101	2,574,275	1,441,747
169	Hwy. 12 to Hwy. 69 (to Footes Bay)	347,064	275,022
400	Toronto—Hwy. 12 & Hwy. 69	3,264,843	3,533,803
401	(MCF) Quebec Border—Windsor	24,655,011	19,080,198
402	Hwy. 401—Samia	459,122	1,216,179
403	Hwy. 401/410—Brant Rd. 25 IC	14,291,556	1,706,305
404	Hwy. 401 & Don Valley Pkwy.—Bloomington Rd.	3,441,701	429,273
405	QEW—International Br. (Queenston)	—	197,256
406	Welland—QEW	8,578,630	344,542
407	Jct. Hwy. to Jct. Hwy. 35 & 115 (Proposed)	1,258,043	—
409	Hwy. 401—Airport Road	104,074	458,992
410	Hwy. 401 & 403—Brampton	7,052,981	202,538
416	Jct. Hwy. 2—Johnstown to Ottawa (Proposed)	47,873	—
417	Quebec Boundary—Hwy. 7 & W. Jct. Hwy. 17	10,097,404	2,708,326
420	Niagara Rd. 106—Rainbow Bridge (Niagara Falls)	35,387	112,249
427	Etobicoke—Coules Ct.—Indian Line	12,429,677	1,312,453
QEW	Toronto—Fort Erie	41,162,107	6,748,748
TOTAL KING'S HIGHWAYS		235,385,817	135,150,185

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
502	Hwy. 11—Sec. Hwy. 594	1,570,925	635,855
503	Tory Hill—Kirkfield	27,240	755,992
504	Sec. Hwy. 620—Hwy. 28	133,296	236,033
505	Hwy. 48—Uphill (Sec. Hwy. 503)	276,775	126,025
506	Plevna—Hwy. 41	187,685	169,863
507	Hwy. 28—Sec. Hwy. 503 (Gooderham)	2,296,755	445,581
508	Calabogie (Sec. Hwy. 511)—Hwy. 17	—	153,792
509	Hwy. 7—Plevna (Sec. Hwy. 506)	9,259	275,435
510	Magnetawan—Hwy. 124	—	15,016
511	Hwy. 7—Sec. Hwy. 508	628,028	406,313
512	Eganville (Hwy. 41)—Hwys. 60/62	79,667	235,615
513	Hwy. 132—Adamston Twp. Bdry.	—	160,335
514	Hwy. 28—Sec. Hwy. 515	—	66,749
515	Sec. Hwy. 512—Hwy. 62	286,698	299,317
516	Sec. Hwy. 599—Sec. Hwy. 642	77,367	404,079
517	Hwy. 62—Fort Stewart Rd.—Carlow Twp.	—	152,370
518	Sand Lake—Hwy. 69	552,074	488,675
520	Hwy. 11—Ardbeg	100	291,101
522	Hwy. 11—Hwy. 69	99,799	639,485
523	Nipissing Dist. Bdry.—Hwy. 60	517,879	100,123
524	Sec. Hwy. 522—Sec. Hwy. 534	104,139	43,921
525	Sec. Hwy. 596—White Dog I.R.	7,154	113,536
526	Hwy. 69—Britt	—	122,863
527	Hwy. 11/17—Armstrong	2,062,896	1,510,556
528	Wolseley Bay—Hwy. 64	—	127,579
528A	Pine Cove—Sec. Hwy. 528	—	37,193
529	S. Jct. Hwy. 69—N. Jct. Hwy. 69	—	130,569
529A	Sec. Hwy. 529—Bayfield Lodge	98,834	65,285
531	Bonfield—Hwy. 17	9,058	22,142
532	Sec. Hwy. 556—Christina Mine Road	317,085	76,758
533	Mattawa—Hwy. 63	569,416	411,997
534	Powassan—Restoule Prov. Park	174,339	302,029

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
535	Hwy. 64—Riviere Veuve	2,708,395	330,228
537	Hwy. 69—Hwy. 17 (Nickle Centre)	4,447	168,633
538	E. Jct. Hwy. 17—W. Jct. Hwy. 17	—	42,056
539	Hwy. 64 (Field)—Hwy. 17 (Warren)	187,509	281,863
539A	Sec. Hwy. 539—Tert. Road 805	—	38,632
540	Little Current—Meldrum Bay	277,837	899,573
540A	Sec. Hwy. 540—Barrie Island Rd. L5-6	3,471	79,925
540B	E. Jct. Sec. Hwy. 540/542—W. Jct. Sec. Hwy. 540	—	42,058
542	Hwy. 6—Sec. Hwy. 540/540B (to Gore Bay)	785,232	456,212
542A	Hwy. 542—Tehkummah Twp. Rd. L10-11	—	65,285
546	Hwy. 17—Mount Lake	26,552	398,130
547	Hwy. 101—Hawk Jct.	—	31,992
548	Hwy. 17—Sec. Hwy. 548 (From N.)	157,572	443,412
550	Sault Ste. Marie—Gross Cap	—	47,082
551	Province Bay—Sec. Hwy. 540	1,370	130,570
552	Sec. Hwy. 556—Fenwick Twp.—End of Hwy.	20,527	94,479
553	Massey—Tert. Rd. 810	62,352	174,756
554	Sec. Hwy. 546—Hwy. 129	788,304	89,453
555	Magog Lake Landing—Hwy. 557	29,027	66,569
556	Hwy. 17—Hwy. 129	698,902	695,996
557	Blind River—Matinenda Lake	387,989	135,655
558	Haileybury—Montreal River Br.	1,869,083	111,996
559	Hwy. 69—Kilbear Prov. Park	—	107,545
560	Hwy. 11—Hwy. 144	203,712	1,029,106
560A	Sec. Hwy. 560—(Westree)	—	42,100
561	Bruce Mines—Sec. Hwy. 638	4,153	135,922
517	Hwy. 62—Fort Stewart Rd.—Carlow Twp.	—	152,370
518	Sand Lake—Hwy. 69	552,074	488,675
520	Hwy. 11—Ardbeg	100	291,101
522	Hwy. 11—Hwy. 69	99,799	639,485
523	Nipissing Dist. Bdry.—Hwy. 60	517,879	100,123
524	Sec. Hwy. 522—Sec. Hwy. 534	104,139	43,921
525	Sec. Hwy. 596—White Dog I.R.	7,154	113,536
526	Hwy. 69—Britt	—	122,863
527	Hwy. 11/17—Armstrong	2,062,896	1,510,556
528	Wolseley Bay—Hwy. 64	—	127,579
528A	Pine Cove—Sec. Hwy. 528	—	37,193
529	S. Jct. Hwy. 69—N. Jct. Hwy. 69	—	130,569
529A	Sec. Hwy. 529—Bayfield Lodge	98,834	65,285
531	Bonfield—Hwy. 17	9,058	22,142
532	Sec. Hwy. 556—Christina Mine Road	317,085	76,758
533	Mattawa—Hwy. 63	569,416	411,997
534	Powassan—Restoule Prov. Park	174,339	302,029
535	Hwy. 64—Riviere Veuve	2,708,395	330,228
537	Hwy. 69—Hwy. 17 (Nickle Centre)	4,447	168,633
538	E. Jct. Hwy. 17—W. Jct. Hwy. 17	—	42,056
539	Hwy. 64 (Field)—Hwy. 17 (Warren)	187,509	281,863
539A	Sec. Hwy. 539—Tert. Road 805	—	38,632
540	Little Current—Meldrum Bay	277,837	899,573
540A	Sec. Hwy. 540—Barrie Island Rd. L5-6	3,471	79,925
540B	E. Jct. Sec. Hwy. 540/542—W. Jct. Sec. Hwy. 540	—	42,058
542	Hwy. 6—Sec. Hwy. 540/540B (to Gore Bay)	785,232	456,212
542A	Hwy. 542—Tehkummah Twp. Rd. L10-11	—	65,285
546	Hwy. 17—Mount Lake	26,552	398,130
547	Hwy. 101—Hawk Jct.	—	31,992
548	Hwy. 17—Sec. Hwy. 548 (From N.)	157,572	443,412
550	Sault Ste. Marie—Gross Cap	—	47,082
551	Province Bay—Sec. Hwy. 540	1,370	130,570
552	Sec. Hwy. 556—Fenwick Twp.—End of Hwy.	20,527	94,479
553	Massey—Tert. Rd. 810	62,352	174,756
554	Sec. Hwy. 546—Hwy. 129	788,304	89,453
555	Magog Lake Landing—Hwy. 557	29,027	66,569
556	Hwy. 17—Hwy. 129	698,902	695,996
557	Blind River—Matinenda Lake	387,989	135,655
558	Haileybury—Montreal River Br.	1,869,083	111,996
559	Hwy. 69—Kilbear Prov. Park	—	107,545

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
560	Hwy. 11—Hwy. 144	203,712	1,029,106
560A	Sec. Hwy. 560—(Westree)	—	42,100
561	Bruce Mines—Sec. Hwy. 638	4,153	135,922
562	Hwy. 11—Hwy. 65	411,358	49,781
563	Hwy. 17—Batchawana Bay—Gov't Dock	153	26,749
564	Hwy. 112—Pacaud Twp. C6—End of Assumed Hwy.	—	42,082
565	Sec. Hwy. 550—Sault Ste. Marie (Airport Ent.)	—	7,599
566	Matachewan—Ashley Mine	—	104,486
567	Haileybury—Lower Notch Dam—End of Hwy.	200	140,215
568	Hwy. 11—Kenogami	—	10,260
569	S. Jct. Hwy. 11—N. Jct. Hwy. 11	203,357	124,337
570	Hwy. 11—Maisonville Twp.	—	53,576
571	Sec. Hwy. 562—Hwy. 11 (Earlton Bypass)	64,331	24,551
572	Hwy. 11—Hwy. 101	—	176,297
573	Charlton—Hwy. 11	11,941	84,871
574	Sec. Hwy. 652—Norembega	—	70,644
575	Jct. Hwy. 17—Jct. Hwy. 64	68,055	140,045
576	Hwy. 101—Kam-Kotia Mine Ent—End of Hwy.	—	98,915
577	Hwy. 101—Iroquois Falls (Hwy. 67)	—	279,387
578	Iroquois Falls—Hwy. 11 (Nellie Lake)	—	36,726
579	Sec. Hwy. 574—Gardiner	—	148,437
580	Hwy. 11—Poplar Lodge Prk Ent—Eva Twp.	—	53,123
581	Hwy. 11—Remi Lake Prov. Park	—	45,202
582	N. Jct. Hwys. 11/17—S. Jct. Hwys. 11/17	575,723	27,418
583	Mead—Lac Ste. Therese	1,876,835	211,696
584	Hard Rock Mine—Nakina—End of Hwy.	60,482	307,171
585	Hwy. 11/17—Pine Portage—End of Hwy. (Sign)	199,591	157,449
586	Hwy. 11—End of Hwy. (Sign)	—	22,706
587	Hwy. 11/17—Hwy. Ends (Sign)	21,882	180,989
588	Hwy. 11/17—Hwy. Ends (Sign)	48,423	295,558
589	Hwy. 102—End of Hwy. (Sign)	—	137,357
590	Hwy. 11/17—Sec. Hwy. 588	2,367,218	118,103
591	Sec. Hwy. 589—Ware Twp.—End of Hwy.	—	35,129
592	Hwy. 11 (Novak)—N. Jct. Hwy. 11	—	88,945
593	Hwy. 61—Sec. Hwy. 588	359,069	520,780
594	Dryden—W. Jct. Hwy. 17	55,105	136,246
595	Sec. Hwy. 597—Sec. Hwy. 590	142,562	217,242
596	Hwy. 17 (Keewatin)—MTC Hwy. Ends (Sign)	307,433	192,447
597	Cloud Lake Rd.—Sec. Hwy. 608	—	74,322
598	Sec. Hwy. 604—Sec. Hwy. 666	—	16,088
599	Hwy. 17—Central Patricia	271,043	1,535,991
600	E. Jct. Hwy. 71—Hwy. 11	242,115	373,098
601	Dryden—E. Jct. Hwy. 17	1,813	98,969
602	Fort Frances—Emo	614	174,553
603	Hwy. 17—Dyment	—	15,893
604	Hwy. 17—Kenora Airport	—	32,480
605	Hwy. 17—Rugby Lake—End of Hwy.	273,667	44,752
607	Hwy. 69—Hwy. 64	7,492	79,055
607A	Bigwood—Schell's Camp	—	15,055
608	Hwy. 61—Sec. Hwy. 595	55,500	157,669
609	Hwy. 105—Clay Lake—End of Hwy.	—	61,957
610	Hwy. 67—Hwy. 101	2,094	98,532
611	Sec. Hwy. 602—Lake Wasaw Rd.—End of Hwy.	—	84,776
612	Muskoka Reg.—Hwy. 69	—	23,102
613	Sec. Hwy. 602—Lake Despair—End of Hwy.	—	149,205
614	Hwy. 17—Caramat Rd.—End of Hwy.	—	265,335
615	Hwy. 71—Burditt Lake	—	132,617
616	Hwy. 101—Palomar—C.N.R. Crossing	—	14,514
617	Hwy. 11 (Stratton)—Sec. Hwy. 600	249,667	100,586
618	Red Lake—Olsen Mine Rd.	1,455	44,803
619	Hwy. 11 (Pinewood)—Sec. Hwy. 621	—	182,251
620	Hwy. 62—Hwy. 28	5,711	202,242
620A	Sec. Hwy. 504—Sec. Hwy. 620	—	2,493
621	Hwy. 11—End of Hwy.	250,861	201,582
622	Hwy. 11B (Atikokan)—Bending Lake Rd.	—	75,829

SECONDARY HIGHWAYS

HIGHWAY NUMBER

LOCATION

CONSTRUCTION

MAINTENANCE

\$

\$

623	Hwy. 11—Bush Rd.	—	21,421
624	Hwy. 11—Hwy. 66	—	171,100
625	Caramat—Hwy. 11	—	128,095
626	Hwy. 17—Marathon	—	18,219
627	Hwy. 17—NW Lts Pukaskwa National Park	1,072	59,940
628	Red Rock—Hwy. 11/17	638,693	35,129
629	Timmins—Timmins Airport	—	38,789
630	Kiosk—Hwy. 17	—	201,027
631	Hwy. 17—Hwy. 11	2,207,360	868,151
632	Muskoka Reg.—Hwy. 141	750	61,980
633	Hwy. 11—End of Hwy.	—	25,704
634	Smooth Rock Falls—Abitibi Canyon Dam	142,000	353,200
635	Hwy. 17—Des Joachims Br (S. End)	—	15,797
636	Hwy. 11—Clute Twp. Rd. C4-5—End of Hwy.	—	21,473
637	Hwy. 69—Killarney	1,589,812	388,796
638	Bailey Br.—Hwy. 17	74,384	219,129
639	Hwy. 108—Sec. Hwy. 546	—	130,570
640	Sec. Hwy. 571—Earlton Airport Entrance	—	66,079
641	Hwy. 17—Sec. Hwy. 596	—	88,963
642	Sec. Hwy. 599—Wellington St.—Hwy. 72	7,154	286,081
643	Sec. Hwy. 584—Cavell Rd.	—	82,683
644	Hwy. 69 (Pte. Au Baril)—Pointe Au Baril—School End of Hwy.	—	65,285
645	Sec. Hwy. 529—Byng Inlet	—	65,285
647	Hwy. 17—Blue Lake Prov. Park—Store	—	29,724
648	Dyno Mines Ent.—West Jct. Hwy. 121 (End of Loop)	1,874	207,203
649	Bobcaygeon—Hwy. 121	1,004	116,273
650	Dane—Hwy. 112—Adams Mine—ONR Crossing	20,538	41,335
651	Hwy. 101—Missanabie—CPR Crossing	155,938	271,746
652	Cochrane—Kattawagami R. Br.	1,229,733	840,354
653	Chenau—Hwy. 17	—	58,367
654	Sec. Hwy. 534—Hwy. 11	31,845	146,096
655	Timmins—Hwy. 11	107	385,045
656	Sec. Hwy. 533—Holden Generating Sta. Ent.	—	26,894
657	Hwy. 105—Goldpines	—	21,324
659	Sec. Hwy. 604—Sec. Hwy. 666	405,614	84,745
661	Hwy. 144—Gogama	—	22,052
663	Hwy. 11—Calstock—C.N.R. Crossing	97,424	22,811
664	Hwy. 72—End of Hwy.	—	62,849
665	Hwy. 17—Richan—C.N.R. Sta.	—	138,704
666	Kenora—Redditt (C.N.R. Sta.)	284,708	116,750
667	Hwy. 129—Sultan	—	174,630
668	Hwy. 11—Green Water Prov. Pk. Ent.	179,224	60,860

TOTAL SECONDARY HIGHWAYS

33,507,886

30,026,376

TERTIARY ROADS

801	Hwy. 11—Namewaminikan R. Br (Sturgeon R. Br)	—	60,896
802	Kashabowie—End of Hwy.—Burchell Lk. Rd.	—	63,341
803	Timmins—Hwy. 101—Forks (End of Hwy.)	—	15,583
804	Hwy. 105 (Lower Manitou Falls Dam)	—	33,932
805	Sec. Hwy. 539A (River Valley)—Pond Lake (End of Hwy.)	—	128,557
807	Sec. Hwy. 622—End of Const.	1,990,147	20,512
809	Sec. Hwy. 564—Misema River	—	16,869
810	Sec. Hwy. 553—Richie Falls	—	306,664
811	Sec. Hwy. 527—Weaver R. Br. (Temp. Br.)	—	330,652

TOTAL TERTIARY ROADS

1,990,147

977,006

SECONDARY HIGHWAYS

HIGHWAY NUMBER	LOCATION	CONSTRUCTION	MAINTENANCE
		\$	\$
ACCESS, INDUSTRIAL & ARTERIAL ROADS			
709	Anaconda Road	—	15,311
714	Quimet Canyon Road	968,637	—
751	Arterial Rd. —Jane St. S'ly to S. Queens Dr.	336	—
771	Kodak Access Road	22,310	—
773	Garden Lake Road	—	102,812
784	Lac Seul I.R. Access Rd.	298,752	—
785	Bending Lake Access Road	25,202	—
788	Moosonee Rd. S'ly	—	9,011
792	Hwy. 17—Dubreuilville Townsite	—	83,687
795	Sherman Mine Road	—	2,611
799	Caramat—Manitouwadge Road	—	45,265
TOTAL ACCESS, INDUSTRIAL & ARTERIAL ROADS		1,315,237	258,697
UNINCORPORATED TOWNSHIPS			
2	Indian Reserves	47,833	288,912
7	Special Settlers	351,134	78,306
9	Local Roads Boards	1,301,073	5,747,334
99	Statute Labour Boards	65,724	122,503
TOTAL UNINCORPORATED TOWNSHIPS		1,765,764	6,237,055
SPECIAL PROGRAMS			
450	Other Ferry Services	—	3,231,258
735	Kitchener/Waterloo Expressway	479,060	498,975
797	Airstrip Development	4,711,483	2,664,473
952	Sidewalks	122,379	—
7087	E.C. Row Expressway	1,339,857	439,762
7118	Brantford Expressway	49,839	23,438
7169	Formerly Oxford Cty. Rd. 6	20,224	—
7182	Formerly Sec. Hwy. 559	—	102,230
7189	Proposed Arterial Rd. in the Cities of Hamilton & Burlington	—	14,064
7800	Dubreuilville Rd.	91,581	89,902
7809	Goodie Lake Rd.	194,189	—
8905	Lands & Buildings	1,137,990	3,199,017
8954	Weigh Scales	179,809	327,009
	Development Roads	4,223,532	—
	Connecting Links	15,441,700	2,154,494
TOTAL SPECIAL PROGRAMS		27,991,643	12,744,622
HIGHWAYS TOTALS		301,956,494	185,393,941
	Sundry Unallocated District Office Administration, Engineering Buildings, Inventory Charges, Recoverables, etc.	(63,090,583)	35,786,002
TOTAL EXPENDITURE		238,865,911	221,179,943

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